

# GREEN'S FRUIT GROWER



ROCHESTER, N. Y., JUNE, 1913

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**G**REEN'S FRUIT GROWER—"A Magazine with a Mission"—It has a real message for the general farmer. It is indispensable to fruit growing farmer. It is largely devoted to fruit growing—the most profitable of all farm industries. Its principal departments are: Editorial, Orchard, Small Fruits, Spraying, Harvesting, Marketing, Poultry, Home, Health, Wealth and Happiness.

CHARLES A. GREEN, Editor.

Price Fifty Cents a Year, Five Cents Per Copy



# The Engaging of Miss Prunella

Written for Green's Fruit Grower by Sada Ballard.

Miss Prunella Pennywhacker switched audibly up the street, the crisp flounces of her brown chambray dress crackling vivaciously, and her head held high in Miss Prunella's own way of looking the world in the face.

"I don't lower my head for anyone," asserted Miss Prunella. "I can look the world in the eye every time."

Miss Prunella lived in the second of the seven Smith Cottages, built where the village street merged into the country road. The Smith cottages were the only tenements in Brace. It was not a large town and the majority of its inhabitants boasted of owning their own homes.

Miss Prunella carried a wooden basket in one hand, which she held up and exultantly displayed over Mrs. Wimple's gate. "I got them for a quarter," she crowed. "There's ten pounds; I'm going to make a few jars of jelly to set by for winter."

Mrs. Wimple slouched out to the gate, her tattered skirt flopping around fat, stockingless ankles partially hidden by the overhanging tops of her unlaced shoes.

"Well, I allus did say you wuz thrifty," she averred, "a storin' up yer winter's honey just like the busy ants."

Miss Prunella's thin lips drew into a tight, straight line.

"You must be thinking of bees, Mrs. Wimple," she corrected. "I never heard of ants making honey."

"Yes, I guess I am," sniggered good-natured Mrs. Wimple. "'Go to the bees, thou sluggard,' I learned that in Sunday school, Miss Pennywhacker, ages ago."

"It's a pity you never learned anything thoroughly," commented Miss Prunella, disdaining to correct her again. "Yes, I'm thrifty. I couldn't be as slipshod as some people. A little taken care of equals a good deal wasted."

"You wouldn't be makin' a basket o' grapes into jelly if you wuz married, with a pack o' younguns," surmised Mrs. Wimple.

"I'd use two baskets then, and make them eat jelly on their bread to save butter."

"Laws! Miss Pennywhacker, even two baskets wouldn't go far in this family."

"Then I'd get more," declared Miss Prunella. "If you don't use too much sugar the jelly is cheaper than butter."

"Well, I gives mine the grease from a streak of fat an' a streak o' lean hawg-meat," confided Mrs. Wimple, "an' the ol' man an' I hez the meat. I reckon that's cheaper yet."

"Good morning," said Miss Prunella stiffly; "I must get to work," and she hurried on to her own gate and passed through.

Mrs. Wimple chuckled as she trundled back and sank down upon her door-step. "Bein' married an' not bein' married is a sore point with some folks," she soliloquized.

Miss Prunella bustled into her kitchen, stirred up the dying embers of her fire, threw in a few sticks, donned a big apron, hustled a preserve kettle and a couple of bright pans out of the pantry, and began stemming the grapes. Her nimble fingers soon brought the bottom of the basket into view, disclosing a grape stained envelope.

"What in the world?" cried Miss Prunella to no one in particular, pulling the paper from underneath the remaining clusters and holding it toward the window.

"To whom it may concern," she read, after a few moments spent in deciphering the almost obliterated letters. "Hum, that must mean me." She tore open the envelope and rising to get a better light, drew forth the enclosure and proceeded to read haltingly:

"If any able-bodied female between the ages of twenty and fifty years, gets this—able bodied female! Why, it's positively indecent!—without an engagement and wishing one—Oh that's different,—please write to the following address, giving full particulars,—Hum!—Respectfully yours,

Hiram Horndipple,  
Vineyberg, N. J."

"Well! Well!" Miss Prunella sat down and folded her hands in her lap, a dazed expression on her pale face. "Well, a proposal, Prunella Pennywhacker, a real, downright, genuine proposal!" She went to the sink and laved her hands in the shining wash-basin; then, all regardless of the half-prepared fruit and the dying fire, she hastened up the stairs to her prim little chamber and took a box of writing paper and a bottle of ink from the top bureau drawer.

"I may as well answer and have done with it," she muttered, shaking a finger at the beaming face in the glass. "Oh, Prunella, you giddy thing! Bothering with beaux, just because they are after you." She drew a little stand to the window and began to write.

It was fully an hour before a letter was finished to her satisfaction. A dozen had

been discarded and torn up before her maiden modesty approved, then she glowed exultantly. "There, I think I've got just the proper twist to this one," she decided; "bold enough to encourage and coy enough to keep him anxious. I've always heard you musn't let a man feel too sure of you." She read the missive over slowly:

"Mr. Hiram Horndipple:  
Honored and respected Gentleman—your kind proposal received in my basket of grapes. I am a female—I declare I can't write to a man 'bout my body!—in good health. I have a little money and I live all to myself. I am lonesome, and that is why I am willing to be engaged according to your letter, providing you have a good home. I am a great worker and a very particular woman. I am sure I can suit you. Full particulars must be sent to gain attention, My esteemed Sir, from Sincerely and hopefully yours,  
Prunella Pennywhacker."

Miss Prunella sealed and addressed the letter, threw off her big apron, brushed her sparse, drab-colored hair smoothly, then coquettishly loosened a few strands of it, slipped on her mits, procured her sunshade from a corner of the front hall, and went out, locking the door behind her.

Mrs. Wimple was shoeing her chickens away from the tomatoes placed on the sunny ledge of the stoop to ripen.

"Goin' out agin'" she called sociably. "Hev you got yer grapes done a'ready?"

"Just wait till I get back. I've got something to tell you," Miss Prunella responded, waving the hand that carried the letter, sportively.

Mrs. Wimple gazed after her with a mystified grin on her round, red face. In a short time Miss Prunella returned and leaned over the rickety gate, beckoning with a lean finger. Mrs. Wimple waddled out to meet her.

"I'm going to tell you the first one," began Miss Prunella with flattering familiarity; "being my nearest neighbor I consider it my duty to tell you I'm engaged to be married." She cast her eyes down demurely and clasped her thin fingers nervously around a picket of the gate.

"You don't say so? Why, Miss Pennywhacker, who is he?" Mrs. Wimple breathlessly inquired.

"He isn't anyone you know, my dear Mrs. Wimple. He's a New Jersey gentleman," explained Miss Prunella.

"Where'd you see him?" Was you ever in Jersey?" asked Mrs. Wimple curiously.

"No, I didn't meet him there. I can't tell you about our meeting," simpered Miss Prunella; "don't ask me please; but our courtship is truly romantic."

"When's it comin' off—the weddin'?" questioned the interested friend.

"Very soon," glowed Miss Prunella. "I don't see the use of waiting. I've just mailed him a letter. It'll become me to tell you more until our plans are settled," she concluded pursing her lips primly.

Mrs. Wimple nodded politely. Miss Pennywhacker was steadily rising in her estimation.

For four days, Miss Prunella called at the post office twice each day. On the second trip of the fourth day, the eagerly looked for letter was placed in her expectant hands, bringing a surge of red over her sallow face. But the postmaster was a phlegmatic man and turned away dully. Miss Prunella hastened home, passing Mrs. Wimple's gate without an inward glance. Once inside the door she dropped upon the nearest chair and tore open the envelope, leaning over to read its contents by the fading light.

"Dear Madam:  
Yours received with pleasure.—Oh, isn't he nice?—and I will state that I have a good home a few miles from Vineyberg.—Hum,—I will meet you at the depot with my team any time you say.—Oh what a lovely man!—and will arrange everything satisfactorily when you arrive.—Oh, I can trust him.—Hoping you will come immediately and awaiting an early reply.—the dear impatient fellow.—I remain,  
"Yours very respectfully,—How perfectly gentlemanly.—  
Hiram Horndipple."

Miss Prunella sat for several moments muttering to herself and counting upon her fingers; finally, she arose with a blissful sigh. "I can be all ready in two weeks," she exulted.

Then began a busy season for Miss Prunella. "There isn't any use in taking a lot with me," she told the interested townspeople who called to examine the household furnishings she had decided to sell. For two days after Mr. Horndipple's second letter arrived the entire village of Brace had heard that one who had been born in their midst was preparing to leave them and to marry.

The young people snickered when Miss Prunella passed along the street on her daily visit to the dressmaker. Some of the older inhabitants wagged their heads sagely. But to the majority, the veil of mystery Miss Prunella had thrown around her approaching nuptials was of delightful interest. Two days before her departure the minister's wife invited her to spend her last night in Brace at the manse.

"You've been so kind," she insisted, when Miss Prunella demurred. "You've no idea what a help those preserves will be to us; most people would have moved them."

"Oh, that's nothing," declared Miss Prunella airily. "Mr. Horndipple owns a fruit farm. I have no idea how I can use one half of what he grows."

The minister's wife sighed as she thought of the distance between Vineyberg and Brace.

"I gave the jelly to Mrs. Wimple," said Miss Prunella, endeavoring to blush. "It's a secret that the grapes were direct from Horndipple's place."

"You don't say so?" gasped the minister's wife. Then, emboldened by Miss Prunella's broad smile, she ventured to add: "Why, it isn't so far but what you could send your overplus to your friends, is it?"

The jelly was not the only thing Mrs. Wimple received. The good creature entered so heartily into her neighbor's joy, that Miss Prunella's store of wood laid in against the fast approaching winter, went cheerfully over the back fence. Her chicken coops emptied in the same direction, and several pieces of her furniture settled into the bare spaces of the Wimple home.

"Miss Pennywhacker ain't stingy, not she!" declared Mrs. Wimple vociferously. "She's a real lady, an' I'll say so to anyone!" she concluded belligerently.

The day of departure came. Miss Prunella's two trunks and the box that held her most precious possessions were carted to the station.

"You are going to your husband with an extensive trousseau," sighed the minister's wife, smoothing the dingy black silk she had worn for second best for six years.

"Yes," simpered Miss Prunella, "I don't mind confiding to you, Mrs. Pike, that I've spent every cent on clothes that the stuff I've sold brought me. Mr. Horndipple's got a nice home and he shall not be ashamed of its mistress."

The train puffed in, Miss Prunella saw her baggage banged into a car, kissed her lachrymose friends farewell, skipped beamingly abroad, and the train steamed out.

It was early in the forenoon of a late September day when she left Brace, and about seven in the evening when she reached Vineyberg, and, trembling with unwonted agitation, stepped down among a crowd of bustling travelers. Near the depot door marked "Ladies," a tall, middle-aged, well-dressed farmer stood waiting, his keen eyes shifting over the throng. Miss Prunella saw him almost the moment she alighted and shrank quickly to one side where she was less conspicuous amid the shadows of early evening. Her heart beat tumultuously, her face was hot and her hands were cold.

"It must be him," she murmured. "That's the door he was going to stand by. Oh, isn't he grand! Can it be possible? Prunella Pennywhacker, I feel like pinching you to make sure you're not dreaming."

The crowd, jostling about, thrust Miss Prunella forward just as an electric light shot forth illuminating the platform. The tall man observed her, smiled, took a step forward, discerned the blue ribbon rosette pinned on her gray silk dress, raised his hat and pushed his way to her, holding out a hand of greeting.

"Getting scared, were you?" he laughed genially. "Vineyberg is a bigger town than Brace; then the Philadelphia trains always bring in a crowd at this hour. Give me your checks—go right into the waiting-room and sit down while I see to your luggage."

He pushed Miss Prunella gently past the door marked "Ladies," before she had time to utter a word. When she sank into the nearest seat and looked up, he was gone.

"Well," she breathed, "this is man's tenderness; this is being took care of; Oh! I never thought to see this happy day!" She sat quivering with the excitement and the novelty of it all for several minutes ere the man returned.

"You've got a pretty good lot of baggage," he said, "I can't take it all to-night; I'll come for the box tomorrow."

"Are we going right home?" blurted out Miss Prunella in a fever of embarrassment.

"Yes, I told them I'd come right back," he replied. "You don't want to go shopping or anything tonight, do you?"

"No," murmured Miss Prunella. "There's folks there, is there?"

"Where?" he inquired vaguely; "Oh, at

my house? Yes, there's enough of them there, you won't get lonesome."

Miss Prunella sat trembling ecstatically beside him while they drove along the country roads resonant with the night-calls of late summer insects and the chug-chug of bullfrogs in the marshes.

"There is no concealment in him," she ruminated; "He's out and out about things. I dread to face a crowd, but, after all, a public wedding will be nice to write home about; and on the whole, it will seem more like getting married than running into a minister's house would. He's a masterful man, all right." And her heart so eagerly reaching out to the mate, throbbed with pride.

It was quite dark when they turned into a lane that led through an orchard to the side of a large stone house whose lower windows were aglow with light. Conversation had languished during the drive; the man only uttering an occasional commonplace remark and Miss Prunella replying briefly and shyly. She trembled so violently when he lifted her down from the wagon that he peered into her face, mercifully hidden in the darkness. Before he could speak a door burst open and a half dozen youngsters of various ages romped out upon them.

"My Goodness!" cried Miss Prunella in consternation, reeling back against her escort. "My Goodness Gracious!"

"Ha, ha," shouted the man, "took you by storm, did they? The rascals! Go right in," pushing her shrinking figure through the doorway. "Here, Luella," to a faded, frail little woman with a young baby in her arms, "this is Miss Pennywhacker, who has come to work for us. Miss Pennywhacker, this is my wife."

## All About Us.

Mr. C. A. Green:—I wish to thank you very much for the sample copies of this good paper which you sent to me. I enjoy reading its clean pages very much, as it contains much valuable information fit for anyone to read. I am interested in market gardening and fruit and flower culture and expect to make same my constant attention and employment in the future.

It affords me great pleasure to read Mr. Green's letters of advice to fruit growers, which are published each month in the paper. May his work be a success throughout the year is my wish.—Mrs. Paisley, Ill.

## Nut Grove at Rochester Park.

Commissioner Riley's plan for the planting of a nut grove in Durand-Eastman Park was given the sanction of the board and an appropriation of \$500, or as much thereof as was necessary, was authorized for this purpose. Commissioner Riley said that upwards of a thousand young trees of the pecan, English walnut, chestnut, hickory and other varieties of nuts would be planted at once under the direction of Superintendent Laney. This indicates the interest which the public is taking in nut bearing trees.

## Gems of Thought.

What we see depends mainly on what we look for.—John Lubbock.

I do not know of any way so sure of making others happy as being so one's self.—Sir Arthur Helps.

Though we should be grateful for good houses, there is no house like God's out-of-doors.—Robert Louis Stevenson.

I bid you to live in peace and patience without fear or hatred, and to succor the oppressed and love the lovely, and to be the friends of men, so that when ye are dead at last, men may say to you,—they brought down Heaven to the earth for a little while. What say ye, children?—William Morris.

The best things are nearest,—breath in your nostrils, light in your eyes, flowers at your feet, duties at your hand, the path of God just before you. Then do not grasp at the stars, but do life's plain, common work as it comes, certain that daily duties and daily bread are the sweetest things of life.—Impressions Calendar.

Do not shorten the beautiful veil of mist covering childhood's futurity, by too hastily drawing away; but permit that joy to be of early commencement and of long duration, which lights up life so beautifully. The longer the morning dew remains hanging in the blossoms of flowers, the more beautiful the day.—Jean Paul Friedrich Richter.

Green's Fruit Grower Co.—Please find enclosed check for \$1.00 to cover subscript on to your paper for three years.

I saw a copy for the first time the other day, and find that I have missed a great deal by not being a subscriber.—Ashley C. Dixon, Stevensville, Montana.

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# GREEN'S FRUIT GROWER

A Monthly Magazine for the Fruit Growing Farmer and His Family

CHARLES A. GREEN, Editor

Volume 33

ROCHESTER, N. Y., JUNE, 1913

Number 6

## Canning Fruits and Vegetables at Home

Written for Green's Fruit Grower by  
S. B. Shaw, Ass't Horticulturist, Dept.  
Agriculture, Raleigh, N. C.

Because of the present high prices of food products, a decided interest has recently been taken in the canning of fruits and vegetables at home. An abundance of fresh orchard and garden products can be had in season, but usually the winter supply of these foods is obtained in the form of commercially canned goods. These are often poor substitutes for the

enough to destroy the bacteria that cause the raw material to spoil. Sterilization is readily accomplished by the use of boiling water. There are three different ways by which this can be done. While the parent bacteria can be killed at the temperature of boiling water, their spores retain their vitality for a long time even at that temperature. In large commercial factories, sterilization is accomplished by subjecting the cans containing the various products to steam under pressure. By this process the temperature is raised to a degree higher than that of boiling water, usually 240 deg. F., thereby killing both bacteria and spores at the same time. Smaller factories and the different home-canning outfits usually make use of the "open-kettle" process. Here the cans are submerged in boiling water and kept at that temperature for a time sufficient to destroy bacteria and spores. The third process, known as fractional sterilization, is that of keeping cans or jars in boiling water for a specified time upon each of two or three consecutive days.

The process of boiling upon consecutive days is the safest method and is much to be preferred in home canning. The first day's boiling kills practically all the bacteria, but does not kill the spores. As soon as the jars or cans cool, these spores develop and a new lot of bacteria begin their destructive work on the contents. The second day's boiling usually kills

on the market, many of them having certain distinct points of advantage. The jar most commonly used is the ordinary screw-top type, shown in Fig. 1, Nos. 4 and 7. Although they are cheap in price, it is hard to do successful canning in them on account of the difficulty in sealing them air-tight during the processing or cooking. The tops are usually metal with a porcelain lining that sooner or later may become loosened and come out, thereby making the top unsatisfactory for use. Jars of this type can best be used for rich preserves, jams and jellies where complete sterilization is not of so much importance as it is with canned fruits or vegetables. Nos. 3 and 5 in the same illustration show two jars with improved screw-tops. These jars have a glass or porcelain top which is held in place by a metal band that screws down over the neck of the jar. This is a decided improvement on the old-style screw-top.

### TYPES OF JARS.

The most satisfactory types of jars for general use are Nos. 1, 2 and 8 in Fig. 1. This shows the original "Lightning Patent" small mouth jar with glass top held in place by a wire spring; the "Safety-valve" type jar with similar top held in place by a lacquered metal band fitted with a spring and lever; and the improved wide-mouth "Lightning Patent" type jar with glass top held in place by a simple wire spring. The "Safety-valve" type jars are used by some commercial packers in canning the extra-fancy grades of fruit

strips of wood, may be used for this purpose. If glass jars are set flat on the bottom of the vessel in which they are to be cooked they are apt to break during the heating. The vessel should also be equipped with a tight cover, preferably tin, to be kept in place while the cooking is being done. This cover retains a large part of the steam to aid in the cooking process. Fig. 2 shows a home-made outfit that can be used in this operation.

### AFTER PREPARATION.

After fruits or vegetables are prepared for canning, pack them firmly in the jars to within about half an inch of the top and fill entirely full with fresh, clean, cold water. New rubbers are then put in place and the tops put on, but not sealed tight. (See Fig. 3). The jars are then placed upon the strips of wood or other support on the bottom of the cooking vessel. This vessel is then filled with cold water to a depth that will bring it up three or four inches on the outside of the jars. The vessel is then placed on the stove ready for cooking to begin. (See Fig. 4).

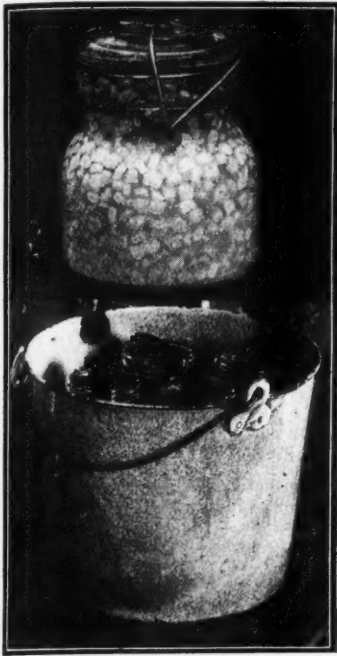
It is difficult to give absolute rules as to the exact time of boiling for each fruit and vegetable, from the fact that so much depends upon the ripeness and the variety. As a general rule, when canning fruits, let the water start to boil and continue boiling for ten minutes. At the end of this time seal the jars tight by screwing down the top or pushing down the spring, as shown in Fig. 5, and continue boiling for twenty minutes. In canning vegetables, let them boil fifteen minutes before sealing tight, and after that continue boiling forty-five minutes. With mixed vegetables, as corn and beans, let them boil fifteen or twenty minutes before sealing tight, and after that continue boiling seventy-five minutes. These directions apply to pint size jars. If quart size jars are used, increase the time of boiling, making it one and one-half times that given for pints.

### AFTER HEATING CANS.

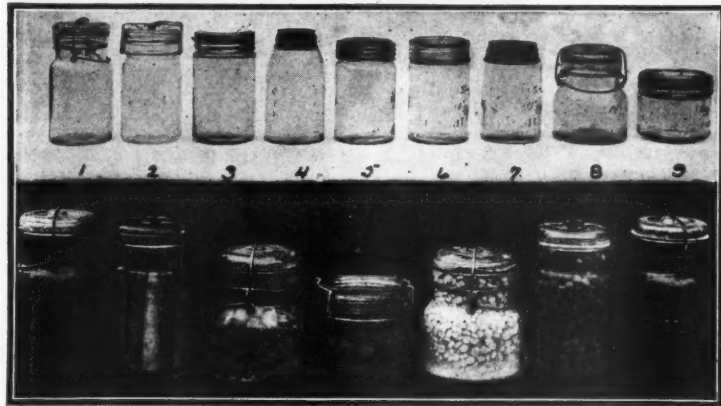
After the jars have been boiled the required time, remove them from the vessel, and set aside in some place where they will not be exposed to a draught. A draught of cold air coming in contact with the hot glass might cause some of the jars to break. Allow the jars to stand for twenty-four hours. At the end of that time again place them in the cooking vessel as on the first day. Fill the vessel with cold water, as directed on the preceding day, and boil fruit thirty minutes, vegetables one hour, and mixed vegetables one hour and thirty minutes. After cooking the required time this second day, again remove jars as previously directed, and after standing another twenty-four hours again proceed to cook on the third day exactly as directed for the second day. After jars have cooled from this third cooking they may be put in any convenient place and kept until wanted for use. Some products may retain their color better if kept in some darkened place out of the direct light. If no convenient place of this kind is handy, wrap the jars in dark paper. Always keep canned goods in a dry place. One point to be remembered in this method is that after the jars have once been sealed tight do not again loosen the top or unseal until the contents are to be used.

Jars of fruit and vegetables are sometimes hard to open. Run a thin knife-blade under the rubber, next to the jar, and press against it firmly. This will usually let in enough air to loosen the top. If it does not, place the jar in a deep pan or kettle of cold water, heat to boiling point, and continue boiling for a few minutes. The jar will then open easily.

Artificial preservatives in the form of "Acids," "Preserving Powders," and "Formulas" of various kinds are used in some localities in the preservation of foods. They are recommended by advertisements and agents as being perfectly harmless and are guaranteed to keep fruit and vegetables indefinitely. The object in using preservatives of any kind is to kill bacteria, thereby preventing fermentation and decay. Bacteria are minute forms of life of very delicate structure, and if these different preservatives act on the structure of bacteria in such a way as to kill them, what might be the effect of these same preservatives when brought in contact with the delicate structure inside the human body? Do not use artificial preservatives of any kind. The cheapest, surest and only absolutely safe way is to sterilize by means of heat applied in the form of cooking.



Upper photograph is the fruit jar all ready for sealing. Lower photograph shows jars in vessel placed on stove ready for cooking.



Upper cut: Nine different styles of fruit jars. Lower cut: Home-canned products in different types of jars.

fresh article, especially the cheaper grades which lack the delicate flavor of the fresh products. In many instances it is frequently the case that during the winter months the most delicious and wholesome fruits and vegetables are absent from the daily bill of fare. Possibly some tomatoes have been canned, some fruits preserved or dried, but no attempt has been made to preserve the most nutritious vegetables and the most palatable fruits because of the impression that it is impossible to keep them. It is possible for every housewife to run a small canning factory in her own kitchen. Fruits and vegetables can be "put up" in glass jars at home much cheaper than they can be purchased in the form of commercially canned goods, and the flavor, texture and general quality of the home-made product can be made superior to the product of the average factory. It is just as easy to keep corn, peas, beans and any fruit as it is to keep tomatoes and peaches—a fact that has been demonstrated by commercial packers who have canned almost every variety of fruit and vegetable.

There has been a belief by the general public that there is something mysterious or decidedly complicated in the commercial canning process. The only secret of this process is a careful observance of two things—Cleanliness and Complete Sterilization. Minute forms of life, which we call bacteria, are present everywhere in untold numbers. The air we breathe, the water we drink, and the food we eat are teeming with them. These bacteria are practically the sole cause of the "spoiling" or fermenting of the various fruits and vegetables. The reproduction of bacteria, which is very rapid, is brought about by one of two processes. The bacterium either divides itself into two parts, making two bacteria where one existed before, or else reproduces itself by means of spores. Spores may be compared with the seed of an ordinary plant. These spores present the chief difficulty in canning the products of the orchard and garden.

All forms of bacteria are killed by complete sterilization. This is nothing more than enclosing the products to be sterilized in jars or cans that can be sealed airtight and submitting them to heat of sufficient temperature for a time, long

this new lot of bacteria before they have had time to produce spores. Boiling the third day is not always necessary, but is it advisable in order to be sure that the sterilization is complete.

### HOW ABOUT QUALITY.

The quality of any canned product is largely dependent upon its condition when first packed. In selecting fruit, use only those specimens that are well grown, ripe, but firm. Do not use overripe specimens, as they are usually too soft and mellow to can nicely. When choosing vegetables, select those that are young and have made a rapid growth. As a rule, young, quick-growing vegetables are superior in flavor and texture to the slow growing and more mature ones.

Fruits and vegetables to be canned are prepared in exactly the same way as they would be previous to cooking or serving for immediate use. All bruised and rotten places should be cut out and all stems, leaves and other kinds of trash removed. See that everything is clean and washed thoroughly in fresh water before being placed in the jars or cans. These should also have been well washed and made perfectly clean. Do not attempt to can decayed or dirty fruits and vegetables. Have everything clean and fresh.

For strictly home purposes, glass jars are more satisfactory and are decidedly more economical than tin cans, although both may be used. The initial expense of glass is greater than that of tin, but with reasonable care, glass will last an indefinite length of time. Glass jars can be used over and over again with perfect safety, but tin should never be used the second time. Tin is more or less so soluble in fruit and vegetable juices. While the amount of tin dissolved under ordinary conditions is too small to be at all injurious, still it has been enough to make the can unfit for use the second time.

There are numerous kinds of glass jars

and vegetables. The wide mouth of the improved jar is a decided advantage when canning whole fruits or vegetables. Although jars of the types illustrated are a little more expensive, much more satisfactory and successful work can be done with them than with those having screw-tops. When buying jars, get as good a grade as can be afforded. The best quality usually retails at from \$1 to \$1.25 per dozen. The first expense may be somewhat high, but with reasonable care good jars should last many years.

The various types of jars are fitted with rubber rings on which the tops rest when in place. Rings are used to aid in sealing the jars and keeping them air-tight. After the contents of a jar have been sterilized, it is very necessary that the jar be kept airtight in order that whatever is enclosed may remain sterile and free from the action of bacteria. Do not use rubbers the second time. The first season's cooking usually destroys the life or elasticity of the rubber. For this reason it is important that good fresh rubbers be used, as those used one season cannot be depended upon to make airtight seals the second time. In buying rubbers, as in buying jars get a good grade.

When canning fruits and vegetables simply for home use, it is not necessary to purchase an expensive or specially made vessel in which to do the cooking, although manufacturers of the various "Home-canning Outfits" have gotten out some very satisfactory utensils in which this work can be done. Any flat-bottom vessel, such as a wash boiler, ham boiler, preserving kettle or bucket, that is deep enough to permit of being covered after the jars or cans are placed inside, will serve the purpose. With whatever sort of vessel used, it is necessary to have what is known as a false bottom on which to set the jars or cans while cooking. Wire netting made of medium-size galvanized wire or narrow



## Answers to Inquiries.

### Sowing Buckwheat.

Mr. C. A. Green:—Why do you recommend sowing buckwheat to follow potatoes on fruit ground?—L. E. Landes, Indiana.

Reply: I do not recall having recommended sowing buckwheat as you suggest. It is a good quick growing crop for plowing under but should not be sown later than June or early July.

### Snails In the Garden.

Editor Green's Fruit Grower:—Last year we were troubled with soft snails in the vegetable and flower garden. Can you tell us what will destroy them?—Miss Edna L. Aldrich, N. H.

Reply: Trap them by placing pieces of poisoned turnip, cabbage, or potatoes about covered with boards so as not to kill fowls, etc. Scatter bits of camphor-gum about the plants. Strew a line of salt along the edges of the bed. Lime dusted about the plants will keep them away.

### Strawberries on Building Lots.

Editor Green's Fruit Grower:—I receive 18 and 20 cents a quart for the old Jessie strawberry. People think I have imported fruit and some have told me they would pay 50 cents a basket rather than do without the berries. Give me the Jessie for high class fruit for high class people. I thought I would tell you of this good old variety that you might put it in one corner of your paper. I am not on the farm any more but own several building lots and will set them out to fruit this spring.—Nathan D. Brown, N. Y.

### New Strawberry Plants.

Dear Sir:—I am interested in strawberry growing and I have been in the habit of taking up well developed plants from new beds that have never borne fruit to set out each year. Will this not tend toward producing nonbearing plants as the parent stock has not been allowed to fruit for several generations of plants? Please answer through Green's Fruit Grower.—Clements E. Cooper, N. Y.

Reply: No, there is no danger in the method you practice, which is the method of nearly all strawberry growers. This is the only method you could pursue in getting new strawberry plants unless you took the young plants from old beds which have borne fruit, and such plants are generally weak and undesirable and not recommended for planting.

### Grubs and Scale.

Chas. A. Green:—I have several peach trees that are gummy and as I scrape away the gum there are white worms smaller than a grub, but larger than the worms that are found in the fruit. Could you tell me what to do for them? I have scraped all the gum off the trees and killed what worms I could find. The worms have gone nearly to the heart of some of the young trees. Would it do to paint those places with some kind of poison?

Could you tell me what it is on my apple trees? There is a white scale and as you press them there is something that is alive under them. What is it and will spraying with Bordeaux kill the insect? I will will enclose stamp for reply.—Charles McCoy, Ill.

Reply: If you have made a thorough search for the white grub and have destroyed all of them I do not know of anything more you can do.

I have no experience with the scale you report on your apple trees. The San Jose scale is not white, but it may be what you call white, therefore it may be San Jose scale that is on your trees. Send a sample to your experiment station.

### Propagating and Pruning the Black Raspberry.

H. G. Brown of Maine asks for advice on the above subjects.

C. A. Green's reply: The tips of the canes of black cap raspberries and of purple raspberries should be buried two or three inches deep nearly perpendicularly in July or as soon as the canes are long enough to bend over and reach the ground. After a month or more roots will form at the tips of each branch thus buried. The following spring these young plants can be transplanted to form new plants. In order to prevent the canes being worked out of the soil by the wind we place a stone on the cane over each buried tip. The soil should be well cultivated in which the tips are buried. Mr. Brown finds that his raspberry canes are cut back by the severe winters in Maine. I know of no remedy for this partial winter killing except to bend the canes over and partly bury them as winter approaches. Where there is danger of winter killing I would not do any summer pruning until early spring. If each raspberry plant is banked up with

earth over the roots it will furnish protection in the severest climate as far as the earth reaches. That part of the cane which winter kills should be cut off in the spring.

### Orchard Troubles.

Green's Fruit Grower:—Kindly tell me what to do with some four-year-old peach trees which have cracked open on the stem. All are cracked on the southeast side.

Would you advise spraying my entire young apple and peach orchard because two trees in it are infested with scale? How is San Jose scale carried from tree to tree?

Will the Live Forever rose live and prosper without cultivation or fertilization on the banks by the roadside in light sandy loam? Can we secure slips for further planting? What is its form and color? E. A. Bowen, Mass.

Reply: For bark bound trees scoring or splitting the bark a little has been recommended, but is a doubtful remedy. If your trees are already injured seriously fasten the bark on.

We advise by all means spraying your entire orchard. You can easily eliminate the scale if you do it now, but if it is neglected in a short time the entire orchard will be infested and you will have to destroy all the trees. Scale can be carried by the wind, by birds, or when it is in the migratory state, when the young scale first appears, it is able to do its own carrying.



A Picking Shed on a Strawberry Farm. The above photograph is worthy the study of an artist. How vividly it reminds the Editor of Green's Fruit Grower of his early experience on a fruit farm. The man standing back in the shadow has the important duty of issuing checks to berry pickers for each tray of berries brought in. He must also inspect the berries, seeing that they are properly picked, that the baskets are fully filled, and that no leaves or other refuse are placed in the boxes with the berries. The man outside with the broad-brimmed hat is the man in charge of the berry pickers. He must be a man of tact and must see what is going on simultaneously in various parts of the field. He will find pickers skipping portions of the row or leaving the row on which they are placed in order to find a more productive row or a row producing larger berries. It is his business to see that each row is picked clean, since many berry pickers will pick only the larger berries or those most easily found, leaving many partially covered with leaves undiscovered. This over-seer of the berry field, if not tactful, may find his entire force on a strike, seated picturesquely on the top rail of a neighboring fence, or he may see them all departing for home, leaving his crop to perish. Do not imagine that all of the berry pickers are as beautiful and winsome as the one in the foreground.

ing. Use lime-sulphur as soon as possible. See that every portion of the tree is covered by the solution.

The Live Forever rose is a very hardy strong-growing variety and will live under most unfavorable conditions. You will have no trouble in making it grow in your soil and in the location you mention. It can be propagated by rooting cuttings. The blossom is of medium size and silvery pink in color.

### Oyster Shell Bark Louse on Apple Trees.

Mr. C. A. Green:—Kindly tell me what is the matter with our apple trees and what to do for them. We have just moved onto our new place and find the young apple trees almost dead with a dark colored, long, narrow scale.—Mrs. H. C. Aldrich, N. H.

Reply: We have examined the twigs you sent and find them affected with oyster shell scale or oyster shell bark louse. Use lime-sulphur wash just before the leaves appear, or kerosene emulsion when the young lice begin to appear the first week in June. Be careful to cover every portion of the tree with the spray.

### Sooty Branches.

In current issue L. G. Roberts asks what causes sooty appearance of some of his apple twigs, and you acknowledge experience with the trouble. I have it and have noticed it several times. It is the effect of the green aphid which he will discover if vigilant. It is particularly noticeable after leaves fall and in spring. A wash or thorough spray of hot concoction of tobacco stems and whale oil soap or other strong soap will kill the lice.—F. M. Hawley, Ohio.

Sooty Trees: With regard to sooty looking apple trees spoken of by Mr. Louis G. Roberts, of New Hampshire, in the April issue of Green's Fruit Grower—We have had other trees affected in this way. Some twigs of a large tulip tree become covered with close set colonies of a large scale covered insect—scales nearly 1-4-inch across sometimes. The gum from their suckings drips on to the leaves below which are sticky, and on the surface grows a black fungus which occasionally peels off like pieces of burnt paper. The leaves on a rhododendron near the tree are similarly covered. I have seen the stem of young apple trees coated with black in the same way where the leaves were troubled with aphids. Of course the branches affected with this scale die. Two young white birches died from the same giant scale.—R. T. Somers, N. Y.

### Planting the Elderberry.

C. F. Schuerman of Missouri asks for information about planting the elderberry in a poultry yard.

The elderberry bush when dug from the wild fence corners may be easily transplanted, but I would not favor planting it in poultry yards for they might send up numerous suckers and prove to be a nuisance. I would prefer the Russian mulberry which is hardy and will produce a large amount of food in the way of its fruit, which is very tempting to poultry. If you want shade for the poultry yard, head the trees back very low. Peach trees

like it, but I like the farm. Do you think a young fellow could make a success of small fruit and poultry business by starting from nothing and working up?

My father has just bought a farm and I have sent all my money to him to help pay for it. I am driving a milk cart now and have agreed to stay here until next August, but I was thinking of going down with my father, and hiring the place next to his farm, which is a small place with no buildings and staying at home and going into the small fruit and poultry business. Do you think a young fellow could make a success with one hundred dollars capital? Where do you think a young fellow, bound to make a success in the world, could make the best success, by going to the city if I could get a good position, or sticking to the farm—Frank P. Taah, Maine.

Reply: I cannot do much in the way of advising you. Almost everything depends upon yourself. If you have a knack for business or can make yourself do things that are not congenial. If you are bound to succeed no matter what the circumstances are, and have ability you will succeed. But remember that many who start out in various enterprises are failures largely owing to the fact that they have not the capacity to manage business affairs. The expense of living in the city is much greater than that on the farm.

### Lime for Land Growing Moss.

Green's Fruit Grower:—Does soil growing moss need lime? If so, how much to the acre and how should it be applied? How late would you advise the trimming of apple trees?—R. S., Mass.

Reply: There is no doubt that your soil would be benefited by an application of lime. If you use hydrated lime you need 800 to 1,000 lbs to the acre; if ground limestone is used you will require 1,000 to 2,000 lbs. to the acre. On Green's Fruit Farm we apply this with a lime drill. If you have no drill, sow broadcast with the wind on a still day, using small shovels for this purpose. If the land is broken ground, work the lime in with a harrow at once. We would not advise trimming your apple trees later than April 15. If they are trimmed before the sap begins to flow, it will have a tendency to increase the wood growth of the trees. If after the sap begins to flow, to check the wood growth.

### Care of Old Grape Vines.

Mr. C. A. Green:—In our garden we have a vineyard of about 60 old vines. Kindly tell me how to care for them. I have just taken charge of the garden and do not know much about it. I have cut away some of the old rough wood and have left several young shoots. Is it best to leave only one shoot? This vineyard has received no attention for many years. I have had the weeds and grass cleared off and shall have the ground between the rows plowed as soon as possible. How long before the two-year-old vines will bear? Does pruning grape vines help them? We have several vines that run around the house. These vines are never pruned but they bear more grapes than all the vines in the garden. I want to make a success of our vineyard and am eager to get some literature about the cultivation and varieties of grapes, but have been unable to do so.—Miss Emma Owen, Tennessee.

Reply: Cutting away the old rough wood and leaving some of the young shoots, as you say you have done, is a brief idea of what grape pruning is. The old wood of the vine never bears fruit. All the grapes produced on the vine are produced on the wood of the previous season's growth, that is the new wood, or buds from that wood, therefore the grape pruner aims to have but little old wood and he cuts back the last year's growth to three buds with the exception of two to four canes which he leaves long enough to reach nearly to the extremities of the trellis. A grape vine growing on the house will produce a large amount of grapes without any amount of pruning, but the clusters will be small and imperfect and the fruit from this vine would not be salable as it would be if the vine were properly pruned. I have vines running over the walls of my house. Each season I prune away more than half of the new wood and a certain portion of the old wood. Most of the new growth of last year is cut back to three buds but enough of the vine left to cover the walls of the building the same as they did in previous years.

I have known grape vines to bear the second year. The third or fourth year there should be quite a crop of grapes. Yes, pruning helps grape vines to produce fine clusters and plenty of them. I send you my booklet which has a chapter of grape pruning and should be helpful to you.

Lots of men act as if breakfast with the family was the tail end of a night and they had had.



### Making A Will.

**Green's Fruit Grower:**—A young man with good prospects, who has secured several patents and expects good results, would like to know how he can will his possessions outside of his family. He does not want his people to have his property as he has not received anything from his family.—Constant Reader, Pa.

**Reply:** You have a legal right to will your property to any person or persons, or institution, you may select, but if you make no will your estate will fall to your nearest relatives.

### More Articles About Pear Growing Wanted.

**Green's Fruit Grower:**—We are interested in fruit in this section, mostly in pears. Some have 1,200 bearing pear trees. We would be pleased to hear a little more about the pear. I have an orchard of 500 pear trees that have been set 3 years. They are growing fine.—Wm. H. Van Natten, N. Y.

**C. A. Green's Reply:** I often wonder why readers of Green's Fruit Grower do not more often send us their experience in pear growing. I feel confident in saying that the pear is entitled to more attention than it is receiving. No one can doubt that the interest in any class of fruit is indicated by the number of inquiries and the number of letters received by publishers from fruit growers in various parts of this great fruit growing country, and pear culture has not received the attention that it should.

The question is often asked, "Which is the most profitable fruit," or "Which is the most attractive or desirable fruit for the home garden and the home supply, or which fruit is the most certain to supply an abundance of fruit?" Such questions are difficult to answer. It is hardly fair to compare one valuable fruit with another when all fruits have their peculiar charm, and when each fruit differs from another so greatly as does the pear from the apple, peach, plum and quince, or the small fruits.

The rarity of a fruit, the same as the rarity of any other object, adds greatly to its interest. The pear is not so commonly met with as the apple, peach and other fruits. There are thousands of fruit lovers who plant the apple, peach and plum, who have not planted the pear. For this reason pears sell for a better price in the market than apples and are considered by some people more of a dainty delicacy for the table than the apple.

I have just returned from a six weeks' vacation in Florida. At our hotel table I noticed that apples were called for daily by many of the guests, but I never heard of pears being called for. I assume that if pears had been called for the reply would have been that none could be supplied. This may be partially for the reason that pears are a more perishable fruit than the apple, yet pears can be kept in cold storage a long time. Even the Bartlett pear, which is as perishable as any pear, is often kept for months after the season when it ordinarily ripens by being placed in cold storage.

When I was a boy on the farm pears were far more of a rarity than at the present date. Almost every farmer had an apple orchard but it was very rarely that you could find a pear tree on any of the productive farms of our neighborhood. In my father's garden there was a row of pear trees which produced beautifully tinted, golden hued pears about as large as the Bartlett, but they were so pucky I could not whistle for hours after eating one of them. My uncle, living several miles away, had on his farm an early pear tree, the fruit of which was small and which I found better than those grown on my father's place, but at that date I had never heard of a pear of fine quality. One day my brother brought home from the city something that pleased me exceedingly. It was a large pear of the Bartlett type. I was allowed to have a small slice of this pear and have not forgotten to this day how well it tasted. A few years later my brother, who was a banker in Allegany county, N. Y., was presented with a box of Virgalieu pears, sometimes known as the White Doyenne. These pears are of most delicious flavor and tender flesh, juicy and altogether the best pear I had ever eaten at that date. The arrival of this box of pears created quite a sensation in that part of the country.

All of this goes to show how rare was the pear in my early days. Of recent date the pear has been more largely planted and is more highly appreciated yet it is, as I have suggested, not receiving the attention it should. This fact is shown by the limited number of orders received by nurseries for pear trees.

The pear may be as easily and cheaply grown as the apple. It comes into bearing earlier than the apple even when planted as a standard tree. The dwarf pear tree comes into fruiting even earlier than the peach, sometimes bearing the same year

planted and often the second or third year. I have seen beautiful specimens of pears on young dwarf pear trees growing in the nursery, the trees being only two or three feet high.

It is not long ago that standard books on fruit growing taught that in planting the pear the soil should be thoroughly drained, no matter how dry it might be naturally, that the land should be subsoiled to a remarkable depth, and that in planting extraordinary precautions should be taken. If these instructions were followed the man who planted an acre of pear trees would have to spend, and often did spend, several hundred dollars in preparing the soil. I know of cases where hundreds of dollars were spent as advised in preparing the land for planting a pear orchard. In recent years all this folderol has been done away with. You may plant pear trees safely where apples will thrive, or on any soil that will produce good corn, wheat or potatoes, with assurance that your trees will thrive and bear fruit abundantly.

A friend of mine, who is a large apple grower and who has a large peach orchard and cherry orchard, has planted a twenty acre field to Bartlett pear trees. I almost envy this man the pleasure of seeing



**Home the Best Market for Fruit.**—Royal G. Cuts of Conn., long a subscriber to Green's Fruit Grower, sends us the above photograph saying that this picture represents the best fruit market in the world. "There are larger markets but good fruit of all kinds is in demand in this particular market and it is here that I get the largest returns." Our subscriber has stated a big truth in few words that many people have not yet fully appreciated, and that is that the fruit grown and eaten upon the farm is disposed of at the largest profit known to fruit growers.

this big orchard with the trees bowed down with their heavy burden of beautiful and luscious Bartlett pears, feeling sure that he will reap a rich reward during his lifetime in the coin received from this attractive orchard.

I do not consider the pear tree quite so hardy as the apple. I could select for you apple trees that will thrive in very cold sections of this country, but I would not recommend pear trees for that locality where the thermometer goes down to 20 or 40 below zero. There is not such great difference in the hardness of pear trees as there is in the hardness of apple trees, one variety of pear being nearly as hardy as another. Flemish Beauty is considered one of the hardiest pear trees, but even this variety is not so hardy as the hardiest apple.

I trust readers of the Fruit Grower will write us brief letters for publication, telling us of their success in growing pears and what varieties they favor as most profitable or desirable for home use.

### Selling American Apples Abroad.

**Editor Green's Fruit Grower:**—New York state has decided advantages over Missouri as regards the exportation problem, chiefly on account of propinquity. Why do you not correspond with the Columbia, Mo., Horticultural College? Several special agencies, say at London, Paris and Berlin, might work wonders in the marketing of fruit, especially apples such a year as this. The extent and increasing importance of the fruit crop in these two states alone should quickly invite foreign interest and co-operation in its distribution. Every orchardist of consequence is directly interested and should help in the cause. Kindly give a stranger's regards to Mr. Van Deman. Get him interested in this crusade.

I notice few allusions in the Fruit Grower to the Winesaps, so prominent with many of us. While we have no success with Baldwins, Russets and several

other conspicuously good varieties, we do have flattering returns from the Winesaps, Jonathan, Ben Davis, York, Ingram, Transparent, Maiden's Blush, etc. Please state your opinion of the relative value of Winesap and Stayman's Winesap.

**Wishing your attractive paper all the merit it has won, and 'tis much, H. G. Craig, Missouri.**

**Reply:** Thanks for your suggestion. Winesap and Stayman's Winesap are valuable varieties differing radically from each other. These two varieties differ widely in size, color, shape and quality, therefore I can see no reason for the similarity of names. Both are of excellent quality. Stayman's Winesap is much the larger as I have seen it. These varieties are not largely grown outside of certain districts, such as West Va., Idaho and Missouri.

### Buying A Farm.

**Mr. Chas. A. Green:**—We have recently received literature and catalogues giving glowing descriptions of New York farms, principally, Oswego, Allegany and Delaware counties. The extremely low prices and owners evident desire to sell, seems to indicate something undesirable connected with these farms.

Having read in the Fruit Grower, your advice to others regarding land and conditions in New York. I am imposing upon your good nature to inquire whether in your opinion these lands would warrant our spending time and money to investigate with the intention of buying a home.—T. C. Knight, Michigan.

**Reply:** I know nothing of the farms you speak of. If you are offered farm land in New York state at a very low price you may rest assured it is not very desirable. I have just bought a farm about twelve miles from Rochester, which I value at \$110 an acre. The buildings now on this farm could not be put there for \$8,000. Generally speaking I would not advise the buying of cheap farms. It is better to buy a good farm with good buildings.

### How Shall Moles Be Destroyed.

**Green's Fruit Grower:**—The Fruit Grower is very interesting and helpful to me and I should like to ask your advice. We live next to the woods, and the moles come into our yard, destroying the lawn and flowers; killing the roots of the fruit bushes, strawberry plants, etc. We have tried mole traps, moth balls, kerosene, etc., which disturbs them slightly for a few moments only. Will you reply in your magazine? I thank you.—H. I. Chubb, Ind.

**Reply:** I have no experience with destroying moles. Will readers of Green's Fruit Grower who have experience answer briefly, and oblige. A few good cats on the place would help much. While I have not been troubled with moles I have known them to be serious pests in the garden.

### SUCCESS WITH ASPARAGUS. One Half Acre Gives \$200 Profit Per Year.

**Editor of Green's Fruit Grower:**—Anyone can grow good asparagus with less care than strawberries. Any good corn land will do. I give my experience: My land is white clay subsoil with only a light covering of vegetable mould, not recommended by the books as suitable for asparagus. It has been partially underlaid with tile, and grows good corn. I grow my stock from the seed of Bonvallette's Giant. Ten years ago I planted 36 rows, 125 feet long, 4 feet apart, the plants 2 feet apart in the row, from the yearling plants. I have picked it for eight seasons and the prospect is good for eight years more. I have a better grade, that is a larger number of mammoth stalks, than my neighbors who are extensive gardeners, although they manure their fields two or three inches deep with stockyard supply, and so far I have used but little fertilizer. My yield indicates a profit of about \$350 to \$400 per acre on the average. The following are what I consider the reasons for my greater success:

First, in planting I place the crown of the plant about two inches below the surface of the ground (not in a ditch), spreading the roots on the slant of this spaded hole, drawing the earth up firmly on the plant. Why do I not follow the book rules? They come from France where the demand is for bleached or white stalks. I do not want that kind for our market demands the green and tender variety. I reason that if the crown is six or eight inches below the surface, the root strength wasted in maturing that length of worthless stalk will materially add to the valuable plant if it can be utilized. I know it is absolutely hardy and does not need the depth to protect from the frost, as the volunteer growths near the beds I have seen are even better than the beds themselves.

Second, I cut during six weeks only. The gardeners cut eight or nine. Perhaps their extra supply of manure makes this

safe, but I want good strong "grass," well matured, on the theory that it will give better results next year. I cultivate and keep it clean during the cutting season, running the cultivator through as often as I can till the season ends. Before the plants appear in the spring I harrow over all the ground. The shade of the stalks is so light that the only remedy for weeds after the plants are allowed to grow is continual vigilance with the hand and hoe. My bed is about a half acre. It has repaid me over \$200 each year for many years past.—M. C. E., Ill.

### Canning the Waste Products.

It is a great mistake when farmers make no attempt to utilize the waste products of the farm. They complain about the inability to market their stuff at a profit, and yet join the ranks of the "dumpers," who put everything upon the over-supplied market, because they think they have no means of storage or transforming into other marketable products.

The fruit season is soon on. What are they going to do with what they can't sell at a profit? Feed it to the hogs? Let it rot on the bushes, vines and trees? Carry it to the market and take a song for it rather than haul it home again? They certainly are headed that way unless they have a canning outfit ready to transform fresh fruits and vegetables into canned goods.

What does the packing house do with the beef and pork you raise? They can't sell it all as fresh meats. Some they hold in storage, some they make into sausages, canned stuff, pickled stuff—anything to give it a market value. Can't the farmer be as wise? It only costs a few dollars to get a canning outfit so they can have a little home factory and save the surplus vegetables and fruits that later will have values they never dreamed of. They send their boys and girls to the cannery to pick up some spare change when they could employ them at home in the very same business and at a greater profit.

Farmers can watch a steam gauge or thermometer, can't they? They can put stuff into cans and follow directions, can't they? Surely they can.

Aside from the purely financial benefit derived by installing a canning outfit, there are many other reasons that will appeal to most every one. For instance, it is popular now to can the cornfields for the stock. Silos are going up everywhere. But if stock need canned fodder in winter, or when the fresh succulent feed is out of season how much more does the family need succulent foods when fresh stuff can't be got. For \$10 or \$15, you can get a canner. Will you?

Write the Bureau of Publications, Washington, D. C. for the latest Farmers' Bulletin, No. 521. On page 25 there are some very interesting facts that will interest any one who is interested in the purchase of a canning outfit to turn waste into profit.

It is a better to promote a good cause than to be promoted in a bad one.

### HER "BEST FRIEND."

#### A Woman Thus Speaks of Postum.

We usually consider our best friends those who treat us best.

Some persons think coffee a real friend, but watch it carefully awhile and observe that it is one of the meanest of all enemies for it stabs one while professing friendship.

Coffee contains a poisonous drug—caffeine—which injures the delicate nervous system and frequently set up disease in one or more organs of the body, if its use is persisted in.

"I had heart palpitation and nervousness for four years and the doctor told me the trouble was caused by coffee. He advised me to leave it off, but I thought I could not," writes a Wis. lady.

"On the advice of a friend I tried Postum and it so satisfied me I did not care for coffee after a few days trial of Postum.

"As weeks went by and I continued to use Postum, my weight increased from 98 to 118 pounds, and the heart trouble left me. I have used it a year now and am stronger than I ever was. I can hustle up stairs without any heart palpitation, and I am free from nervousness.

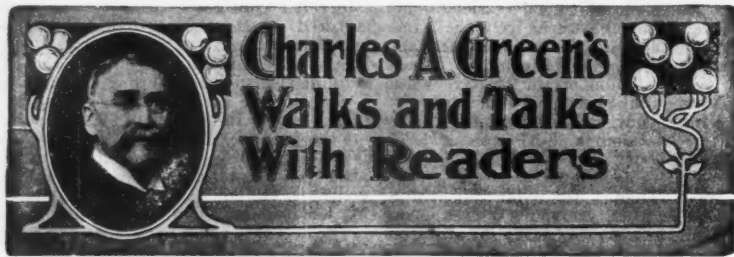
"My children are very fond of Postum and it agrees with them. My sister liked it when she drank it at my house; now she has Postum at home and has become very fond of it. You may use my name if you wish as I am not ashamed of praising my best friend—Postum." Name given by Postum Co., Battle Creek, Mich.

Postum now comes in new concentrated form called Instant Postum. It is regular Postum, so processed at the factory that only the soluble portions are retained. A spoonful of Instant Postum with hot water, and sugar and cream to taste, produce instantly a delicious beverage.

Write for the little book, "The Road to Wellville."

"There's a Reason" for Postum.





"Think nothing done while aught remains to do" said Napoleon.

ROCHESTER, N. Y., JUNE, 1913

We can help others by telling of our mistakes. Please write Green's Fruit Grower briefly, telling of the mistakes you have made the past year.

You can do good by relating your successes. Please write Green's Fruit Grower briefly, stating how you have made your home attractive by planting fruit plants, vines and trees, enclosing good photograph of fruit garden.

If you can do nothing more to help the housewife than to keep constantly on hand a supply of kindling wood, cut into short lengths for the kitchen stove, and a supply of dry beech or maple to go with it you will be accomplishing much.

Reply to Mrs. J. C. Whitney, Michigan: I know of no remedy for the white grub, except to dig it up where you see a plant wilting and kill it. Strawberries should not be planted on soil infested with white grub as newly turned sod land is liable to be infested.

I will continue to tell my readers that while fruit growing is the most profitable method of occupying the soil, there is no fruit growing, so profitable as that grown for the home supply of the farmer and his family, or the villager and his family. See that the grounds of your church parsonage are well planted with vines and fruit trees.

**Spraying Potato Vines to Prevent Potato Rot.**—The potato rot which has occurred in Western New York recently, is owing to a fungus which attacks first the vines. If the potato vines are sprayed with Bordeaux mixture in July or August, the rot may be prevented.

Lime-sulphur is not a desirable spray for potatoes. You will injure your potatoes by applying the lime-sulphur spray.

**The Earthquake.**—Yesterday as I took the elevator in one of the popular hotels of Rochester, N. Y., I saw that an aged man, poorly dressed was in charge of the elevator. His face and bearing were unusual, leading me to inquire into his history. I learned from another source that this man was living in San Francisco had a wife and three children, was at the head of a factory employing 400 men, and was estimated to be worth \$400,000. The earthquake came, destroying the lives of his wife and children, destroying his property and leaving this man over 80 years old, absolutely penniless and homeless. I am told that this unfortunate man is now paid the munificent sum of 40 cents a day for running the hotel elevator. Probably he is furnished with board in addition to this small salary.

#### Bad Boys Made Good.

How well I remember the great crowd of boys who attended the preparatory school called the seminary, which I attended when a lad 16 to 18 years old. Nearly all of these boys were well behaved and well disposed, such boys one might expect would make useful citizens. Among several hundred boys from 16 to 20 years old, there may have been a dozen who were vicious and corrupt. A few of the boys would seem to give no promise whatever of reforming, yet strange to relate, one of these wild boys has been a successful clergyman for the past 40 years. Another one of the wild boys became a leading bishop, noted for his eloquence and correct living. Here is a ray of light for the parents of wild boys. Do not give up hope but continue loving service to the wild boy, hoping ever for his reform.

#### Enemies of Birds.

The cat is considered the greatest enemy of birds. A lively cat, not overfed, may destroy hundreds of birds each year. Since there are about as many cats in the country as there are men and women, say 90,000,000, the number of birds destroyed by the cat, can easily be estimated. The cat gets in her best work after heavy showers when the birds' feathers are wet, when the bird is not normally active, and when the birds are half grown, in which time the cat climbs a tree and finds the birdlings helpless. Mischievous and thoughtless boys take pleasure in robbing bird nests. In the woods and fields, birds

are freely destroyed by hawks, owls, squirrels, skunks, mink and weasels. The worst enemy of all is man himself, who is slow to learn that the birds are his best friends. The man with a gun, and the woman who wears the plumage of birds on her hat, thus causing the destruction of myriads of mother birds, leaving the nestlings to starve for want of a mother's care, should be educated and suppressed.

#### Nature Never Resting.

In riding through the country on the same road where I had traveled one week previous, I noticed the changes that had taken place in seven days. The wheat and the timothy grass had headed out, the fruit on the apple trees had developed from fading blossoms to apples of appreciable size, the June grass was ripening and

The only way to test different varieties of fruit, is to have both varieties before you, eating first one and then the other. I have before me a Swaar and find the flesh tender and crisp on April 10th. The Swaar is sweeter than the Banana, but has not so high or pronounced a flavor as Banana. The flesh of Banana is of a brighter yellow color than the Swaar.

The Swaar must be considered an unproductive variety when compared with Banana, which is marvelously productive. But the great drawback on the Swaar, is that the tree in the nursery is a slow stragling grower. For this reason, nurserymen cannot produce a tree of the Swaar at the same cost that they can produce a tree of the vigorous upright growing Banana apple. Therefore it is hardly possible to find a young tree of the Swaar for sale in any of the great nurseries of this country. Those who are bent on having a tree of Swaar on their places usually get scions of the Swaar apple and graft them to a tree of Spy, Baldwin or Ben Davis, which are stronger growers than the Swaar.

Owing to the peculiarities of the Swaar, which are somewhat against its ever being freely planted, I am inclined to think that the Banana will ultimately usurp the place of the Swaar as a long keeping winter apple of high quality, the tree, a thrifty upright grower, bearing at an early age, bearing abundantly, the fruit being uniformly fair and handsome.

#### Old Friends in the village of Rush, N. Y.

A former resident of Rush, whose father lived near the Wadsworth farm,

Dryer is in business in Rochester. Anson Davis and wife are dead. Many former residents of Rush are living in this city.

#### Wild Pigeons.

In 1852, near Andover, N. Y., there was a large forest in which wild pigeons nested. I was a boy then and knew no better than to go out into the woods and catch the young birds. With an axe, I would jar a tree of moderate size. This jarring would disturb the young nestlings so that they would tumble out of their nests and fall easy victims. In this way I filled a market basket with squabs in an hour. The larger trees in which the birds were nesting could not be jarred sufficiently to dislodge the birds. These larger trees were often chopped down, thus securing from one tree several hundred young pigeons.

Very early in the morning before the sun was up, the male pigeons would start out from the forest on a foraging tour. At ten o'clock, the male birds had returned and then the female pigeons started out to feed and to bring food to the nestlings. I am told that men went into these forests at night with clubs and killed hundreds of pigeons roosting on the low branches of the trees.

A groceryman at Andover, offered a trapper or netter of wild pigeons, twenty-five cents per twelve for all the pigeons he would catch with his net. One day, this man brought in and sold to the grocer 2,500 pigeons. The pigeons were packed in barrels and shipped by express to New York City. A traveler bought of this grocer, three hundred dozen pigeons at



The above photograph represents a thrifty and productive field of strawberries and the pickers of all ages engaged in the delightful and profitable work of harvesting the crop. It is not profitable to employ children under eight or ten years old to pick strawberries or other small fruits. In New York state a law has recently been enacted prohibiting the employment of pickers under fourteen years of age. This seems like an unwise law which must increase the cost of growing strawberries and other small fruits, and will thus add to the cost of living, as more must be charged for the berries if they cannot be economically harvested as formerly. In past years the best pickers have been those from twelve to fifteen years of age, but it has been difficult to secure enough of these in most instances, therefore it is a problem for fruit growers to know what to do under the existing circumstances. It is evident that we need in our state legislators and in our representatives at Washington, D. C., men possessed with greater knowledge of human affairs, men who are more practical and possessed of greater common sense. Surely the man who introduced this new law was a man who did not know what he was doing or the mischief he was causing. Later—The above law was killed.

ready for cutting and the clover was nearly ready to blossom. On every side I could see that nature had not rested for a moment. The old saying is that the crops grow while the farmer sleeps. Nature is ever at work and has been at work seemingly forever on this globe, but at least for several million years.

Let us consider for a moment the achievement of these million years of nature's work on the earth. From nebulae the earth was formed, from chaos, was developed a tangible globe. Then the waters were separated from the earth, mountain ranges were thrown up and partially smoothed down by rain, frost and the glaciers which are God's plows. Gradually soil was made of the pulverized rock and the decay of vegetation. Then crude creatures came to life and were gradually transformed into higher organisms until we come to man and his surroundings of the present day. Nature never rests.

#### The Banana Apple in Comparison with The Swaar.

Yesterday I had in my hand two apples, one a Swaar, the other a Banana apple. The Swaar was not attractive, its color being a dull greenish brown, whereas the Banana was a bright golden yellow with a slight blush on one side. On showing these apples to a city friend, who had been brought up on a farm, he exclaimed, "That is the good old Swaar which I used to eat on my father's farm, fifty years ago. It has been many years since I have seen or eaten a Swaar apple."

The Swaar is universally spoken of as about the highest type of quality in apples.

long occupied by Cyrus Davis, writes me that she cannot wean herself from the beautiful village of Rush, and asked me to tell her about the old residents and how many are left, where the absent have gone, etc.

I find that there are many subscribers to Green's Fruit Grower scattered all over this continent, who originally lived in the town of Rush, and are like this lady, interested in hearing anything which relates to that township in which they were born and brought up.

But few of the old time residents are left in Rush. The last to be borne to the cemetery, was Morris R. Darrohn, a veteran of the civil war. James A. Green has long been an invalid and is now living at Detroit, Michigan. Ira W. Green is one of those who have died within the past three years. His farms are now being run much as they used to be by his two sons. His daughter married and is living in the east. Theodore D. Green died about two years ago. The Green family have organized and had an annual picnic in Rochester in early summer. Jonathan Green, whom you inquire about, was present at this picnic last year with his daughter, son-in-law and the father and mother of his son-in-law, and many others. Jonathan is over eighty years old, but seems to be as bright and spry as ever. Dr. Herbert Dryer, formerly of Rush, is living in this city; two of his children are married. Wm. Houck, a former Rush man, died about four years ago. The Hallock Brothers are gone, their farms now being managed by a son. Cassius Green is dead and his brother Albert is living in Rochester. Charles

35 cents per dozen. These pigeons were intended to be sent as presents to city friends of the buyer.

In North Dakota, twenty years ago, wild pigeons were somewhat plentiful. Late one spring, there came a very cold snap and all the pigeons in the locality of Grand Forks, Dakota perished. They were found frozen stiff.

In western New York, I have seen the sky so densely occupied with flocks of pigeons as to cast a shadow over the landscape. The principal hour of their flying was in the morning before ten o'clock and in the afternoon after four o'clock. On the shore of Lake Ontario, wagon loads of pigeons were shot in a few hours in the early morning. The pigeons in their flight northward came upon the lake, which they did not dare to pass over. The pigeons on striking the lake turned eastward along the shore in such vast numbers, that one discharge of the gun might bring down a dozen. Forty-five years ago, any schoolboy with a shot gun that cost not over four dollars could go out into the near by woods and shoot a mess of pigeons. There were times when he could find the wild pigeons in his orchard. Pigeons were most plentiful in September, when wheat was sown. I have seen thousands of them picking up seeds of wheat at this season of the year. The wild pigeon was not a wary bird like the hawk, crow or partridge. It seemed to have confidence in mankind, and not to anticipate danger, thus its destruction was rapid and complete.

Modern electric hoists are so designed that the speed varies with load.

I am a city farmer, begin life or as a experience and has on the su I was grounds flowers. I did not propriety assistant intelligence of the s either of ence on t not. My learn ho bright ar the subj shrubs, o ing or run I asked to place the shrub to find su sods, whi burned th stroyed th other sim I could n had no ex city and t pection, than his li an inexpect upon one farm and tions. It for him to work or in confidence born and realize ho have learn the soil. succeeded made man to serve a

#### Findi

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The reader that the gro requires a litt the growing potatoes, for are salable versal call in the best knowledge o special know I must her it is an ad grower, to l country wh orchards. C it is an adv crop to be l try, where and peaches loads are go ing cities.



## Inexperienced Men as Farmers.

By C. A. Green.

I am often asked whether I would advise a city man who as had no experience in farming or fruit growing to buy land and begin life anew as a farmer, fruit grower or as a poultry keeper. My recent experience has thrown light on this question and has confirmed my previous thoughts on the subject.

I was invited to lay out ornamental grounds and beds of shrubbery and flowers. I accepted the invitation though I did not have time for such work. The proprietor of this beautiful home and his assistant were men of more than ordinary intelligence, but they had no knowledge of the soil. I inquired particularly if either of these men had had any experience on the farm and they said they had not. My readers will be astonished to learn how densely ignorant these two bright and intelligent city men were on the subject of soils, fertilizers, plants, shrubs, or anything connected with farming or rural life.

I asked for several loads of garden soil to place immediately about the roots of the shrubs and plants, and was surprised to find supplied a lot of rotted manure and sods, which it seemed to me would have burned the roots of the plants and destroyed them. From this experience and other similar experience, I will say that I could not advise a city friend who has had no experience on a farm to leave the city and undertake farm life with the expectation of making his living, or more than his living, by tilling the land. Such an inexperienced man would have to rely upon one of his hired men to manage his farm and to settle many important questions. It would be exceedingly difficult for him to employ a man suitable for this work or in whom he would have sufficient confidence. The fact is that even those born and brought up on the farm do not realize how many practical things they have learned by living and working upon the soil. Yet there are city men who have succeeded on farms, but they must have made many mistakes at the start, and had to serve an apprenticeship.

## Finding A Market For Fruits.

Last year, a lady in Pennsylvania, wrote me, that she had a large crop of winter apples, but there were not many orchards in her locality, therefore, buyers did not come there to buy and she did not know where to find a market for her apples, though apples that year were in great demand at high prices. Today I have another letter from a subscriber in Pennsylvania, who has a large crop of Kieffer pears, which he cannot sell at home and does not know where to find a market. These letters call attention to an important topic, which is the marketing of fruit and the finding of a market, or in general terms, of the distribution of fruit.

The man versed in business methods, who has the promise of a crop of fruit, whether apples, pears, or small fruits, will correspond early in the season before the fruits are mature, with commission houses in various cities not too far distant from his home. In this way, or by visiting the buyers or commission houses or groceries of large cities, he will get some idea as to the most promising point for the shipment and sale of his fruit crop. The man not versed in business methods will defer this initiatory work of correspondence or visiting, and will do nothing until he has his fruit crop picked, barreled and ready for sale. Then he will look around for a purchaser, and in his eagerness to sell, may dispose of his crop at far less than its actual value.

Pennsylvania is a great state, filled with large and enterprising cities or towns, therefore there should be no lack of a demand for fruit of all kinds. There are localities in Pennsylvania, where there are many miners, such as Pittsburgh, where there is a demand for fruit of ordinary character for which a high price is not expected. There are other towns in Pennsylvania, where there are numerous factories which cause a demand for fruits. Such cities as Philadelphia, furnish a market for the higher grades of fruit, that is fancy fruit packed in boxes holding a half bushel.

The reader will see by the foregoing, that the growing and selling of fruits requires a little more business ability than the growing and selling of wheat, corn and potatoes, for these ordinary farm products are salable almost anywhere. The universal call for the distribution of fruits in the best possible way requires some knowledge of distant markets as well as special knowledge of local markets.

I must here allude again to the fact that it is an advantage if you are an apple grower, to be located in a section of the country where there are many apple orchards. Or if you are growing peaches, it is an advantage in selling your peach crop to be located in a section of the country, where peach orchards are numerous and peaches produced in large quantities, and where not only carloads, but train loads are going out each day to the leading cities.—C. A. Green.

## GREEN'S FRUIT GROWER

AN ILLUSTRATED MONTHLY JOURNAL

GREEN'S FRUIT GROWER CO., Publishers

C. A. GREEN, Pres. and Treas. R. E. BURLEIGH, Vice-Pres. and Mgr. M. H. GREEN, Sec'y.

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Prof. H. E. Van Deman, Associate Editor

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Subscribers who intend to change their residence will please notify this office, giving old and new addresses.

Entered at Rochester (N. Y.) Post Office as second class mail matter.

## Cover Crops in Orchards are More Important Than Generally Supposed.

I desire to impress upon readers of Green's Fruit Grower the fact that enough has not been said about the importance of having some kind of a crop growing in orchards after the frequent cultivations given in spring and early summer. In July, never later than the last of July, cultivation should stop in the orchard and berry field with the exception of strawberries, which must be weeded and looked after throughout the growing season.

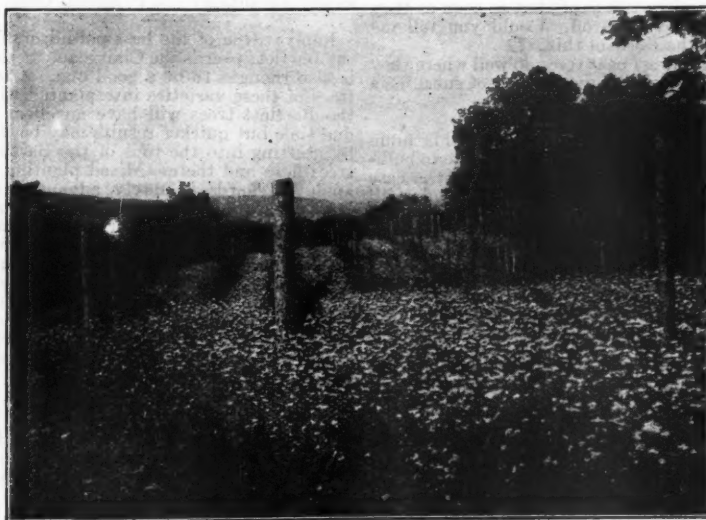
At the last cultivation, say July 15, do not fail to sow some kind of crop in your orchard, whether it be apple, pear, peach, plum, quince or cherry.

The advantages of this cover crop are briefly as follows:

The roots of the cover crop take up some fertility, prevent the waste of this fertility from leeching or washing away on the surface. When the crop is turned

At Green's Fruit Farm, we have tried cow peas for a series of years, but find we are too far north to succeed with this valuable plant. Soy beans may be sown to take the place of cow peas in the north. Common field peas make a good cover crop. All kinds of clover may be recommended but ordinarily the clover plant does not attain enough size in the short time allowed it in the growing season from July 15 to November. Rye, oats and barley are sometimes sown as cover crops. They are all helpful, but not so desirable as leguminous crops. Rape seed is cheap and this plant is often used as a cover crop. Common weeds sometimes make an excellent cover crop. I know of one largely successful orchardist who relies upon a thick and rank growth of weeds to cover the soil in his orchard, but as a rule, weed growth cannot be depended upon.

In gathering the fruit of the orchard, some injury must be expected to the cover crop growing beneath the trees, but you



A Good Cover Crop of Buckwheat. Buckwheat is our best non-leguminous cover crop. It stands up well through the winter thus holding the snows.

under the next spring, all of the fertility absorbed by the plants is returned to the soil and with it additional humus, something which is much needed in all land that has been worked or cropped for a long term of years. It has long been recognized that the soil should not be left bare throughout the year for a long series of years. Orchardists and farmers everywhere have recognized the fact that in order to protect the soil from loss of fertility it should be covered with some growing crop, but this does not occur in orchards that are cultivated unless a cover crop is sown as indicated above.

The cover crop prevents the ground from hardening and the roots boring down into the earth make the soil accessible to moisture received from showers.

Perhaps the most helpful feature of the cover crop is in adding fertility to the soil when the crop is plowed under the spring after it is grown. This cover crop costs something and this cost should be considered. The seed used on each acre may be \$3.00 or more, depending on what you sow, some seeds like that of the vetch being more costly than other seeds, buckwheat being the least expensive, but vetches add far more to the fertility of the soil than buckwheat, therefore they may be the cheapest in the end.

will discover that this drawback will not be so serious as you anticipate.

## Marketing Fruits and Vegetables.

Written for Green's Fruit Grower, by J. S. Underwood, Illinois.

In growing fruits and vegetables for the market the dollar is the standard by which success is measured. Marketing the products and getting the returns are the last acts of the drama. To be successful in getting good prices for what we ship we must place upon the market such goods as the people really want. These, of course, must be of the very best and in good condition when offered, else the labor and expense of growing and shipping is partially lost.

It must be remembered that the best is always demanded, and will be secured. Condition, quality and style of preparation all enter into the problem of getting satisfactory results from marketing fruits and vegetables.

A very necessary feature is to market the crop as soon as it is ready. Frequently some hold for higher prices—to speculate a little, but experience in holding perishable goods for a better market will teach them that nothing is ever gained by so doing. It will not pay for the loss in quality and condition will more

than equal any possible advance in price, and the advance usually is for fresh receipts, not "held over" goods.

It will not do to ignore any of the conditions necessary to success. There is little use in shipping fruits and vegetables which have been aptly characterized as "stuff" and paying charges on the same. Especially is this true when the conditions can be improved. Often goods that are of fine quality have had the sale ruined simply through utter neglect, or ignorance of the manner in which they were prepared for the market.

Today all points are considered by buyers—not only quality but condition and style. The general first appearance goes a long way in attracting the eye of the customer, and I mean the sight of the package as well as the style of the fruits and vegetables.

It is of the utmost importance to use the best possible make and quality of package that is offered for sale; not always the most expensive however, but possessing at least three points: First, the ability to safely carry and protect the contents; second, to permit of a reasonable examination and estimate of the value while displaying the same in a neat and tasteful manner, and last, but not by any means least, of a minimum weight thereby effecting a saving in transportation charges.

In packing fruits and vegetables for the market it is never best to pack all kinds in one package. The best course to pursue is to sort and ship several grades, distinctly labeling each. I mean by this to pack the best by itself, when one wishes to ship all grades. It is a very poor practice to line the bottom and sides of a package with goods of fine quality and then fill the interior with inferior and partially decayed specimens. This will result in reduced sales every time.

We can, therefore, sum up this proposition thus: Prepare the products so that they will be attractive and desirable to the eyes of the buyer. Use the best possible make and style of the package. Study transportation problems carefully. Practice strict integrity in all of our dealings. And while ideal conditions may not be reached, it is very certain that a great advance will be made in profitable marketing of fruits and vegetables.

## Fortunes in Farms.

At one point in Louisiana, on land which was formerly considered the poorest in the state, strawberries are grown on over 20,000 acres, and early vegetables on as much more, for the Western markets, furnishing thousands of car-loads of freight to the railroads and bringing back many hundreds of thousands of dollars to the growers says "Leslie's." There is scarcely a state in the South which cannot show many illustrations of equal interest. The Louisiana rice region, which a quarter of a century ago could have been bought at twenty-five cents an acre—and the seller at that price would have thought he was cheating the buyer—annually ships thousands of car-loads of rice, and has an investment, coming wholly out of the rice development, of more than \$75,000,000 put into villages and towns and rice farms and irrigation plants and all the activities which follow the birth of a new industry of such importance as this—Richard H. Edmonds

## "LIKE MAGIC."

## New Food Makes Wonderful Changes

When a man has suffered from dyspepsia so many years that he can't remember when he had a natural appetite, and then hits on a way out of trouble he may be excused for saying "it acts like magic."

When it is a simple, wholesome food instead of any one of a large number of so called remedies in the form of drugs, it is more than ever likely to feel as though a sort of miracle has been performed.

A Chicago man, in the delight of restored digestion, puts it in this way:

"Like magic, fittingly describes the manner in which Grape-Nuts relieved me of poor digestion, coated tongue and loss of appetite, of many years standing."

"I tried about every medicine that was recommended to me, without relief. Then I tried Grape-Nuts on the suggestion of a friend. By the time I had finished the fourth package, my stomach was all right, and for the past two months, I have been eating with a relish, anything set before me. That is something I had been unable to do previously for years."

"I am stronger than ever and I consider the effects of Grape-Nuts on a weak stomach as something really wonderful. It builds up the entire body as well as the brain and nerves." Name given by the Postum Co., Battle Creek, Mich.

"There's a reason," and it is explained in the little book, "The Road to Wellville," in pkgs.

Ever read the above letter? A new one appears from time to time. They are genuine, true, and full of human interest.





## Fruit Helps

By Prof. H. E. Van Deman,  
Associate Editor.

### The Home Markets for Fruit.

A matter that is equally as important to the fruit grower as the production of a first class product is the disposal of it at a net profit to himself. In many sections there are cooperative organizations of growers through which the fruit is marketed. But most fruit growers, and especially those who live near the smaller towns, have no such opportunities of escape from the clutches of the middlemen. It is everyone for himself in such cases. However, there is usually a means of escape from the greed of the tricky dealers, which lies in the home markets.

Before going into fruit growing on a commercial scale the situation should be carefully studied and unless there is an organization or good prospect of one the plan to ship to distant markets should be avoided. It is very rarely that this pays good net returns because the cost of transportation and commissions exacted by those who sell at both wholesale and retail are so heavy as to leave little for the producer. The chances of being taken advantage of are too great to warrant the risk involved. Many fruit growers who have taken this risk have had reason to regret it although there are some notable cases of success. The proportion of the consumer's dollar that the producer will get is the vital point. If the home markets are properly worked he will get far more than the 35 cents that has been found to be the average part of it falling to the producer's share in the big market.

It is a very common thing for the dealers in the small towns to send to the cities for supplies of country produce because they are not well supplied with it by local growers. In some cases there may be reasonable excuses for this but often there is not. They sometimes can get certain things cheaper than the local growers will or can furnish them, which is a good reason for buying from the wholesale dealers. But the fresher and less opportunities there are for damage from rough handling the better all country produce is and this is especially true of fruits. The appearance and flavor are both retained better by nearby delivery to the consumer, and it is he who finally pays all the bills and is the one above all others to be satisfied.

Arrangements can usually be made with retail dealers or grocers to take regular supplies that will fit their trade. When this can be done at fair prices to the producer it is a better plan than to deliver directly to the consumers. However, there are growers who find it more profitable to sell directly to them, thus furnishing their products in the best condition possible and getting all of the retail prices. I have tried this in a small way myself and have known many others who have done the same. They have gradually worked up a line of trade that took all they could produce. This often requires early rising and late returns in the evening if the distances to be traveled are more than a very few miles, but the net profits received usually pay well for the extra trouble.

Attending public markets is a steady business followed by some fruit growers who plan for it. Sometimes they are so under the control of local merchants who do not want the consumers and producers to meet in a business way that there are ordinances in force that prohibit it. In such cases the parcel post may be a help and it is being tried by some and although not with any great success as yet, so far as I have heard, because of the perishable condition of the things and their bulk and weight in proportion to their value. Time may right this to some extent.

The chief thought of the fruit growers of moderate business should be to study out and patiently and skillfully work out the problem of the nearby marketing of their own products. They should try to make them so good and deal so fairly that there may be a growing demand for them. Whoever cannot or will not do this or has not the knack of trading agreeably and profitably may better depend on the old plan of shipping through the big dealers or quit the business altogether.—H. E. Van Deman.

### Answers to Inquiries.

#### Culture of Orange Trees.

Prof. H. E. Van Deman:—Am writing you in regard to the proper culture of orange trees raised from seed, of Florida

oranges, which I planted about three years since.

A nephew sent a box from Florida and the remark was made that "I could begin to raise an orange grove being a widow with no children to care for and having ample time." The trees are nearly two feet high very slow of growth, are they not? The foliage looks good, and I am longing to see blossoms forthcoming.

I am an interested reader of Green's Fruit Grower as my sister's family with whom I live, have taken it several years. Thanking you in advance for any information you can give me as to grafting, etc, I remain—Mrs. Mary Hughey, Mich.

Reply: Among my earliest recollections is of a lemon tree that my mother grew from seed and kept in a tub in the house during winter. It was almost large enough to bear when she died and after that it was neglected. It is entirely practical to grow citrus trees of any kind in tubs and keep them in greenhouses or in dwelling rooms with proper care. Of course they take considerable room but pay for it in pleasure and will bear a little fruit. Seedling orange trees, such as this lady has will bear in the course of time but they should be budded to really choice varieties to succeed the best. The Satsuma is one of the most satisfactory, being a very early bearer and of the Mandarin class. Another beautiful and delicious little citrus fruit is the Kumquat, which is the smallest of all and comes from Japan. The trees bear heavily and only attain half the size of orange trees or less. Buds of any of these trees can be got from Florida and grown easily.

#### Plum and Pear Inquiries.

Prof. H. E. Van Deman:—I have a plum tree that is about six years old and is very vigorous and healthy. It had blossoms for the last two years but as soon as they open they drop off. Could you tell me what the cause of this is?

Will dwarf pear trees do well where they will get only about one hour of sunshine a day?—Martin Luippold, Mass.

Reply: It is probable that this plum tree is of a variety that is not able to pollinate its own flowers. If this is the case the flowers of some other variety will cause the fruit to set but just what variety or varieties will do this is only a guess without knowing what variety is complained of, and even then it may not be possible to give the needed information. There has been very little careful work done in the way of cross pollinating the varieties of the plums and until this is done there can be little known on the subject. Practical orcharding has taught us some things in this line, especially about the American and Japanese plums, which are somewhat defective in their flowers.

Dwarf pear trees would not flourish where they could get but one hour of sunshine each day. They need more light.

#### Pyrox as a Spray.

What is the experience with Pyrox as a spray for fruit trees?

Reply: There is none of the manufactured preparations that excels Pyrox as a spray for both biting insects and fungus disease that I know of, and I may say from experience, none are equal to it for so many things. It can be used with all safety on vegetables, no matter how tender they are, so far as I have ever heard of it being tried on them. It is not only very effective but sticks remarkably well, thus making it necessary to spray with longer intervals than with many other preparations.

#### Peach Inquiry.

Mr. Van Deman:—After reading from your pen in Green's Fruit Grower on peaches I thought the following and its answer would be of general interest.

We have read several articles on the plan of retarding the swelling by spraying a milk of lime on the buds. Starting about Christmas and occasionally adding another spray after rains. The white color reflecting the heat of the sun back, hence retarding the swelling. I have written to several eminent fruit men one of them being Prof. Whitten of the University of Missouri, who has tried but only claims a small retarding effect, and advising me to go slow by first trying on a few trees. But I believe that if it will retard the

opening of the buds 3 or 4 weeks, that it would be sufficient to insure the crop nearly every year and that a man would be safe to even go in debt purchasing a horse power sprayer, with 3,500 peach trees which is our number. This would be much cheaper than the orchard fire pots. Would like to read your views.—L. C. Fanguet, Okla.

Reply: As I have never tried or seen others try the plan of spraying with lime to retard the opening of peach or other fruit buds I do not have anything to base an intelligent opinion on or about the matter. All that I have read about it leads me to believe that it is reasonable and may be of value. What we want is actual experience and those who try it should give the facts to the public.

#### Apple Inquiries.

Prof. H. E. Van Deman:—Please answer what is the record of Akin as a market apple, and why is it not more largely planted? With me it is superior to Jonathan in color, quality and long keeping indeed is nearer perfection than any other I have among some sixty varieties.

2. Is it identical with Red Canada or Steele Red?

3. Are the Sutton Beauty and Hubbardston one and the same?

4. How were the two distinct types of Rome Beauty developed and when and where first observed?—A. E. Tracewell, W. Va.

Reply: Akin has a good record in the market and is steadily increasing in favor. It is of excellent quality.

2. It is a distinct apple from the Canada Red which is also called Steele's Red by some.

3. Sutton and Hubbardston are very distinct and differ in size, color and in other ways.

4. There have been several bud sorts of the Rome Beauty that certainly look to be improvements but I am not certain that any of them have been tested out thoroughly.

#### Pollinizer for Bartlett Pear.

Prof. Van Deman:—Will you please tell us through Green's Fruit Grower what varieties of pear pollinize one another to best advantage and especially what varieties you would advise planting with Bartlett for the best results. Do you regard pollinization or mixed planting of apple as any advantage?—A. P. Keller, Ohio.

Reply: One of the best pollinizers for the Bartlett pear is the Clairgeau. Seckel is also thought to be a good one. A few trees of these varieties interplanted with the Bartlett trees will have an effect in due time but quicker results may be had by grafting into the tops of the Bartlett trees here and there. Mixed planting of apple orchards is surely advantageous if there are but four or five rows of one kind and the same number or less of another that is a suitable pollinizer there will be more fruit set. Some kinds are reciprocal in this respect and the subject is deserving of the closest study before planting an orchard. Bees serve a most useful purpose in carrying pollen from one tree to another and all orchards should have some near them.

#### Romanite Apple.

Please give description of the Red Romanite apple in your paper or to me as I do not find it in books.—J. E. Chase, Mass.

Reply: The proper name of the apple is Gilpin, but is often called Little Red Romanite and Carthouses. It is small, dull red, roundish in shape, of sweetish flavor and keeps very late. It is not especially desirable and is rarely planted since better kinds are known. Pennock is called Big Romanite, which is a very poor apple. There is another variety, the Pennock, that is sometimes called Red Romanite also Big Romanite. It is large and of very poor quality and often having dark pithy spots in the flesh.

#### Scuppernon Grape.

Prof. H. E. Van Deman:—Will you kindly tell me through Green's Fruit Grower the commercial value of the Scuppernon grape that is mentioned on the last issue of Green's Fruit Grower. Is this grape best suited for market or for wine? What quality and date of ripening? This kind of grape is not mentioned in the list of the different varieties of grapes of the nurseries of the northern latitude and I think is not raised up here.—L. Gasperment, Conn.

Reply: The Scuppernon grape is a variety of the native species *Vitis rotundifolia* that is common along the Atlantic coast from below Chesapeake Bay to Florida. There are several other good varieties of this species among which are the James, Mish and Flowers. All of them are very sweet and of good quality but have very thick skins and grow in small

clusters. They drop from their stems when fully ripe and are usually gathered by shaking them off the vines on sheets. These grapes have a limited local market range and are eaten by those who know them and appreciate their value but it is rather unlikely that they would sell well along with the Concord and other varieties of the northern class. However it is worth testing out. The vines bear heavily and require almost no pruning. They are trained on bread trellises or arbors and I have seen a single vine covering a space of 100 feet in diameter. Professor T. V. Munson of Dennison, Texas, grew many hybrids that greatly improved this class of grapes, especially in the enlargement of the clusters, which rarely have more than 4 or 5 berries in the natural species, and gave some of them varietal names, among which are San Alba, San Melanca and San Rubra. None of them are hardy enough for the northern States.

#### Length of Life of an Apple Orchard.

Green's Fruit Grower:—I have purchased an apple orchard near Albany, Ore. How many years will an orchard of standard, high grade trees planted on the proper kind of soil for apples and properly cared for live provided also that nothing aside from natural cause should damage them?—G. A. Sarles, St. Paul, Minn.

Reply:—The length of the life of apple and all other fruit trees varies considerably in different climates. The natural conditions about Albany, Oregon, which is in the Willamette Valley, are good for apple trees as some of those that have been growing there since the first settlement of the country proves. I have seen many such there and know by recent observation that they have safely passed through fully 50 years of life and retained the usual vigor of trees of that age. Compared with the average of the country at large I think the Willamette Valley is a good apple section.

#### Ol' Nutmeg's Sayings.

Written for Green's Fruit Grower by Joe Cone.

##### A FARM POEM.

Plough more, sow more,  
Plant more, live more,  
Raise more, keep more,  
Sell more, reap more.

Never mind the new leaf—turn over a little more soil.

The milk uv human kindness never turns sour or goes to waste.

The true son uv the soil hez a good foundation under him.

You can't very well kick over the traces without bringin' danger upon yourself.

If you are frozen with a glance you will thaw out ag'in very quickly.

It allus sounds a hull lot better to say "cheer up" than "shet up."

Many a poor feller's resolution to give up smokin' goes up in smoke.

Doctors should be the on'y ones who should ever look down in the mouth.

Undoubtedly, there is character in handwritin', but what about them who can't write?

Sometimes in tryin' to dodge the truth one may git hit by satan's express.

No winter ever rotted in the sky mebbe, but occasionally one becomes specked.

Book farmin' is a purty good idea if they's plenty uv push behind it.

When poverty comes in the door, love should ask him to set down an' fill up.

Love may make the world go round all right, but money furnishes a good bit uv the hoss power.

The wummun who expects all the pettin' sooner or later ceases to be a pet.

They is on'y one thing quicker than gittin' rich quick, an' that is gittin' poor.

A sponge may be purty soft, but not ez soft ez the one whom he sponges.

Jest becuz natur' hez done a lot fur you is no sign that you orter rest on your oars.

The right kind uv feller feelin' aint uv course, the kind thet is showed out by the pickpocket.

A rose by any other name would smell uv money jest the same ef twuz out uv season.

Don't be ashamed uv the hayseed in your hair; mebbie it's a hull lot better than bein' a bald-headed clerk in the city.

If you hitch your wagon to a star she may lead you a merry chase down the financial race-track.

It may be all right to dream, but usually speakin' it is more profitable to do it nights when you are asleep.

#### ONE AN' ONE MAKE TWO.

Two souls may hev a single thought, Two hearts may beat ez one, But when the butcher's cart comes round, They's two to feed, I swun.

Green's Fruit Grower:—I think it is one of the best publications of its kind in the country. I would not be without it at four times the price.—John B. Gramentine, Pittsburgh, Pa.

Summer I have to see Farmer M every summer



## Leguminous Crops Fertilize Trees.

Written for Green's Fruit Grower by  
J. S. Underwood, Illinois.

The growing of leguminous crops for orchard fertilizers should be more generally practiced than at present.

I have grown such crops in my orchard for several years with remarkably pleasing results, as it has remained in the very best physical condition. The details of the growth, cultivation and utility of legumes are subjects for study and consideration. Their roots penetrate deeply into the soil, making it more porous and decompose more or less of the hardest substances with which they come in contact. The roots also support bacteria which have the power to change the free nitrogen of the air into plant food. The thick epidermis of the leaves prevents rapid evaporation from their surfaces, the heavy foliage, shading the ground and checking the loss of moisture by the direct action of the sun and wind, at the same time keeping the temperature of the soil at a low point through the hot months better than if clean cultivation was used.

The cowpea is the more generally known and different methods of cultivation are practiced. The common plan here in Illinois is to plow the land, harrow it once or twice and plant the seed with a wheat drill or double row with a corn planter. Sometimes the seed is sown broadcast on freshly plowed land and harrowed in. But I have found that there is always some of the seed lost by this method in a dry time.

It has been my experience that better results are obtained by a thorough preparation of the seed bed, then planting in rows about thirty inches apart and cultivating shallow, keeping the surface level, until they shade the ground.

It will be noticed that the difference in yield is more marked on poor than on land well supplied with humus. Even then the seed saved and the benefit to the soil of good cultivation are worth taking into consideration.

If this method of planting is practiced, one bushel of seed will be sufficient for four acres. The seed should not be planted until the ground is in condition to germinate it without delay.

It should be remembered that the cowpea is from a warm climate and the seed will decay sooner than corn in a cool, damp soil. In ground that has been settled by rain, the roots of the plants are deprived more or less of the benefits from the air circulating through the surface of the soil. The air should penetrate the soil. It is essential to the best development of the plant and to the life of the bacteria which collects this free nitrogen.

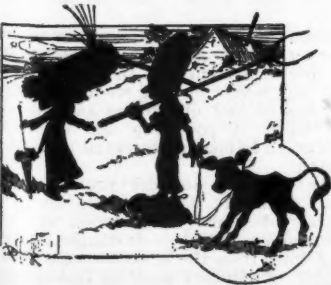
For this and other reasons, land that crusts over or bakes after a rain should be cultivated before the crust forms and the surface kept loose.

I find that the most profitable results will be obtained from the crop by pasturing it with sheep or hogs. The fertility removed by the stock amounts to little; in fact, the most valuable elements of fertility for the orchard, potash and phosphoric acid, are nearly all left by the stock. I mention potash and phosphoric acid as the most valuable—this I find to be the case when leguminous crops are grown for fertilizing the orchard.

If the crop cannot be pastured and the vines are likely to interfere with harvesting a crop of fruit, it will be necessary to roll or break them down, in which shape they make a good winter mulch. Then the following spring they can be plowed under or worked into the soil with a disk harrow.

The soy bean requires much the same treatment as the cowpea. Its upright growth makes it a good crop to grow where the vines of the cowpea are objectionable. It will produce more seed, which is richer in protein, fats and ash than the cowpea.

One objection I have to the soy bean is, when ripe, the seed pop out from the effect of the hot sun. However, that matters little when used as a fertilizer. The seed should not be planted deep, especially in wet weather. For pasturing it is better to plant in rows, for the hogs and sheep will walk between the rows, eating from either side, and not break down the plants as when broadcasted.



Summer Boarder—"Don't you ever come to see the sights of a city?"  
Farmer Medders—"Oh, no; we see 'em every summer."

## Coming Features

By R. E. Olds, Designer

From this time on, when you buy a car, these are things to watch for.

Left-side drive—  
Center control—  
Oversize tires—  
Set-in dash lights—  
Free entrance in front—

Right-side drive has been abandoned by the leading cars. Hereafter drivers will sit close to the cars they pass.

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Note that Reo the Fifth has all these new features. And our center control is a one-rod control—an exclusive Reo feature.

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A \$75 magneto—  
Doubly-heated carburetor—

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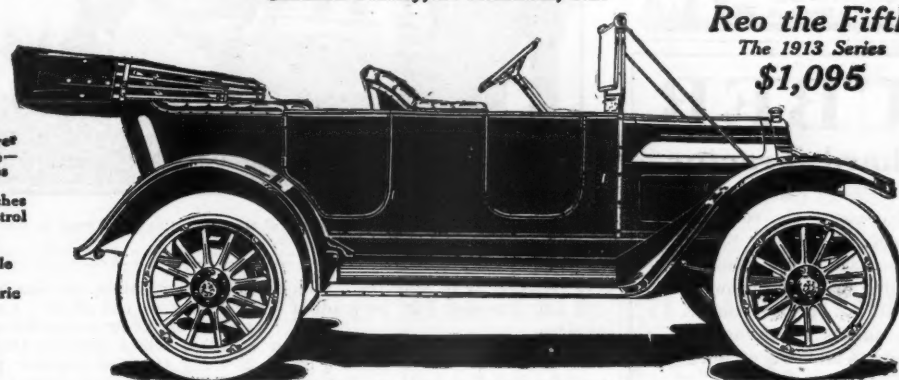
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(Gray & Davis Electric Lighting and Starting System at an extra price, if wanted.) (203)

## Cost of Raising an Orchard.

Written for Green's Fruit Grower, by  
John E. Taylor.

Few people will dispute that an orchard is a paying proposition but there are few people who know what an orchard costs to get it into bearing age and condition. There is a man in Somerset County, Maine, that has determined the cost and still believes that when the orchard of 1,000 trees is ten years old it will yield a profit of at least \$1,200 for that year and increase as it grows older.

The figures herewith are those of the owner of the orchard. He states that in getting land for an orchard, he chose rocky soil and the cost of plowing such land cost him \$4.00 per acre. He valued the land at \$30 an acre and it took 25 acres for 1000 trees. He set 40 trees to an acre. He plowed his land six inches deep and the amount of harrowing done which on ordinary orchard ground would need four times cost \$64, this requiring two horses. The cost of getting the rocks from the land before plowing, cost \$4 per acre and picking the smaller rocks after plowing cost the same. This man reckons that no orchard will succeed unless the land has a tendency to be rocky.

He considers as in other branches of farming that half the battle is in getting the land ready for the seed. As he puts it the biggest part of shaving a man's face is in lathering well. He has set in his orchard 40 trees to the acre and these trees of the Gano, Stark and McIntire variety cost delivered to the field an average of 25 cents a piece and the cost of surveying land, digging holes, pruning

roots about 11½ cents each. Then there is the putting on 1,300 pounds of lime to the acre which costs at the rate of \$7 per ton and \$1 to put it on.

One will realize that setting out the orchard does not complete the work for the first year there is something to do. This man, in the first year, early in the spring plows up the ground again between the trees and plants various kinds of crop including corn, wheat, potatoes, etc., and he uses about one ton of fertilizer to the acre and the expense this year is small as the profits from the crop offset the expense. The expense to the orchard during the first year is the pruning, wiring the trees or using some form of protection from mice, this man using elm veneering which costs about \$6 an acre.

Now some may not realize the advantage the planting between the trees is to an orchard. This man has proved that it increases the growth a third. As an experiment one year when the trees were two years old, he left a row without being cultivated around the trees and in the fall, these trees showed that they had gained about six inches, where those that had the cultivation had grown 17 and 18 inches.

The orchard after it is two years old should be sprayed at least twice a year and sometimes three times using at one time lime sulphur and at another time arsenate of lead; one being used in the fall and another in the spring. He considers that the arsenate of lead should more preferably be used when the petals have fallen and never should be used when the tree is bearing fruit.

His own experience has been with his orchard of 1,000 trees that the replacement of trees the first year was 50 trees of the 1,000 and then each year thereafter they averaged 10 trees. The replacement costs 45 cents each.

This Maine Farmer's experience was to get at the seventh year, 2 bushels of salable apples to the tree. When the trees were ten years old they produced on an average more than a barrel to a tree and the profit to him from the 1,000 trees amounted to about \$1,300 and he considers that for the next twenty years the orchard with the proper care will be a bank account at big interest.

## The King's Court.

There is a story of one of the great Mogul emperors in India to the effect that, feeling that his poorer subjects were being refused admittance by the numberless courtiers that thronged the antechambers, he devised a way to grant an entrance to all. He hung in his bed-chamber a golden bell. To the bell was attached a golden cord which was led outside the wall of the castle until it reached the ground. When a poor man in the kingdom had any wrong for which he sought redress he did not need to go to any of the officials, and perhaps bribe them, in order to reach the king's ear. He could pull the golden cord, and the bell in the royal chamber told of a needy one outside. Thus all had access to the king. It is the same with our King. No one is shut out. No one needs to approach Him with gifts or to seek out a courtier or an official. Access is free.



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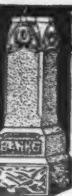
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### A Short Memory.

"I seem to know you, but don't remember just where I have seen you."

"Under your automobile, when you ran over me on Easter Sunday."—Blanco y Negro (Madrid).

## All About Propagation by Budding in Big Nurseries.

### Keeping Fruit Tree Buds by the "Ice Box Method"

Written for Green's Fruit Grower, by G. Hale Harrison, Maryland.

The keeping and selecting of fruit tree buds is one of the fundamental, and one of the most difficult problems to the nurserymen. There are very few nurserymen in America who handle their buds in



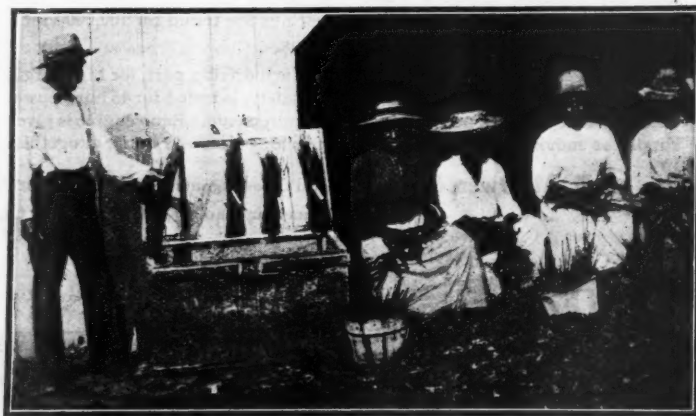
Above photograph shows the inside construction of the ice-box as covered by such article, the paper in the center compartment being to represent a block of ice, the buds in the buckets in front of the box are to represent the old style method of handling budding wood.

the same manner, therefore, there is varied opinion as to what is the best method. In former years most of the practicable methods of handling buds

used. The buds in the bucket were generally exposed to the wind and scorching sun during the working hours which caused the water to become warm in a short time, thus causing the bud "sticks" to draw up large quantities of water. If the bud "sticks" remained in the water for any length of time, they became water-logged, thus causing the "eyes," which are part of the buds, and the part under the eyes to turn brown. The browning of the "bud eye" cannot always be detected by the naked eye unless the "sticks" are considerably water-logged. If a bud, in which the "eye" is browned or partly browned, is put in a tree it will almost invariably die. Thus, it is apparent that it would be an endless job to examine every bud before it was put into a seedling.

It has been proven by numerous experiments that buds from a bearing orchard are stronger than those from the nursery row, although we must admit that trees grown from buds which came from the nursery will grow taller but not as strong in caliber in a year as those from the orchard. The buds used in the so-called "Ice Box" method came from profitable bearing orchards, which are true to name, free from all injurious pests and fungus diseases.

It is important that a man who is well trained in the nursery business should do the selecting and cutting of all the buds. Do not allow a gang of men to do the cutting because their standard of selection would be different and there would likely be mistakes. Immediately after the bud sticks are cut they are sprinkled with water and placed in a cool, shady place which is protected from wind.



This picture showing the small box is one of the fumigating boxes used as described in this article. The colored women are leafing the budding wood.

were tried by us in Maryland, sometimes with fair success, but very often with failures.

For years after the writer began to work in the nursery, he noticed quite an irregular stand of buds in the peach and apple blocks. At that time no one could honestly say what caused a fair stand of buds one year, and almost a total failure the next, although the same methods were used and most of the same men were employed. These frequent failures caused

The bud sticks are then leafed, that is the leaves are cut off with a sharp knife, thus leaving about a quarter of an inch of the stem, which protects the eye of the bud. Only the well ripened part of the bud stick is saved during this operation. After the bud sticks are leafed they are labeled and placed on a box in the sun, in order that the outer surface might dry. Only one variety undergoes the operation at one time. After the buds are dried, they are placed in the fumigating box



This photograph is one showing the budding process. A part of the gang are scratching and cleaning out around the seedlings so that the budder can get to them. This photograph shows the budder with his knife in position and the boy tying the bud in after it has been placed.

nurserymen to investigate whether or not there was a better way of handling buds than the "Bucket Method," which was the one then most commonly used.

The buds used in the "Bucket Method" were either from the nursery or orchard, but mostly from the former. This method was very simple and easy. The buds were kept in water from 3 to 6 inches deep in a bucket from the time they were cut from the parent trees until they were

which will clear the bud sticks of all injurious insect pests. The fumigation of buds, when properly done, is a most efficient and practicable way of keeping nursery stock free from injurious insects.

The fumigating box is 4 feet long, 2 feet wide and 2½ feet high—inside measurements. The walls of the box consists of three thicknesses of lumber, each layer running in a different direction. The spaces between the boards are filled with

a preparation of tar, which helps to keep the box air-tight. Ordinary building paper is placed between each layer of boards. Around the edges of the lid there are several layers of canvas which help to keep out the air. The chemicals used for generating hydrocyanic acid gas used in fumigation are:

1. Fused cyanide of potassium; 2. Sulphuric acid; 3. water. Cyanide should be guaranteed 98-99 per cent. The best grade of commercial sulphuric acid, with a specific gravity of at least 1.83, should be used. A grade known as "Chamber" acid used ordinarily in the manufacture of fertilizers will not do, and under no circumstances should it be employed. Water from any source will suffice, the only requisite being that it should be clean. In combining the chemicals, first measure the acid in the glass beaker marked "ounces" on the side, and put it in any container such as an earthenware crock. Second, measure water in same beaker and pour it on the acid. Third, drop in the cyanide, wrapper and all, close the door quickly and leave the desired length of time. When water is poured into the vessel with sulphuric acid, some heat and fumes are given off, which is not dangerous. As soon as the cyanide is dropped in the acid and water, there is a bubbling and sizzling similar to that produced by a piece of red hot iron in cold water. The result of this chemical action is hydrocyanic acid gas, which is known in liquid form as prussic acid. Hydrocyanic acid gas has an odor somewhat similar to that of peach pits, but do not try to test it because if some of the gas is inhaled it will cause instant death. Plants are less injured by a short exposure to a relative large amount of gas than by a long exposure to a relative small amount, and also that a stronger dose in shorter time is more destructive to the insects affecting the tree. The resisting power of a tree is dependent largely upon the open and closed condition of breathing pores, the peculiarities of the cell contents and the temperature of the enclosure (box). Use from 0.05 to .1 or .105 gram of cyanide of potassium per cubic foot of the air space enclosed. Expose about half an hour.

(Continued next Month)

### Summer Pruning of the Peach.

Written for Green's Fruit Grower, by M. Roberts Conover.

Summer pruning of free-growing trees and bushes, previous to their bearing age is economy of time and growth in the life of the plant for it directs the growth toward the parts needed for future shape and bearing. It is a telling operation with the young peach, as its growth is naturally rapid and abundant.

It should never be practised on peach trees during the first summer after setting, however, as they need all of the top they can grow to establish themselves. It is chiefly useful during the second and third summers after setting. Summer pruning can never supplant winter pruning. It merely supplements it, directing the growth of the tree toward those parts that are to form the main arms and fruit-bearing branches by removing those superfluous and misplaced, and it largely determines the direction of the intermediate branches. The peach in common with some other trees will send out branches from buds along its trunk below those forming the head of the tree. While the tree is young these branches or "suckers" will naturally draw much upon the roots, robbing the branches above of some of the sap needed for their vigorous growth, if left on to the full seasons length, but if they are pinched or clipped off in June, the branches above are saved that drain with the result that they are better grown than if they had had to share with the "suckers." There is also upon a healthy young tree—especially where the soil is rich in nitrogenous material—an abundance of lateral branches along the limbs. By nipping out one or two of these now and then, and by shortening the tips of leading branches tending too far outward or inward, much time is saved in the growth of the bearing wood, so that when the tree is old enough it will bear more and support its crop better.

Where this is practiced the following winter pruning removes much less woody growth than would otherwise be necessary.

Summer pruning should never be severe, however, for top growth and root growth are interdependent and in a well-rooted tree, any severe cutting would throw its root system out of balance and hold the tree back. A good top and plenty of dark green foliage are essential to healthy growth.

The work of summer pruning is so easily done that it is a temptation to go at the young and tender wood with the hands alone, but there is danger of skinning down from the broken twig a shoot. A pair of clippers such as one uses in pruning vines is safer.

Aim high, but don't overshoot the enemy, who is constantly peppering you.

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## AUNT HANNA'S REPLIES

## The Importance of Love Affairs.

The majority of people of middle life look upon the love affairs of young people as frivolous notions to be laughed at, but such is not the case. Such affairs are serious and often cause misery and may lead to suicide or to the destruction of the life of the girl by the lover who afterwards destroys his own life. Recently there has come to my attention an instance where a young man was rejected by the girl he loved, and who had accepted his proposal of marriage. This abrupt change, this disaster, caused congestion of the brain in the young man and his early death.—Aunt Hanna.

## A Free Spender But A Poor Provider.

How often we hear a young man commended for his free spending of money. Such young men are apt to be far more popular than those who husband their resources in early life, deeming it necessary to do so in order to gain a start in the world.

Girls should remember that free spenders very often turn out to be poor providers later in life when they have a wife and a family of children to support, therefore for a young man to have the reputation of being a free spender is not such a reputation as a thoughtful girl should desire or commend in a young fellow in whom she is deeply interested and possibly thinks of as a prospective husband.

How necessary it is that every man should have a little capital to start life with. It has been said that the hardest money of all that a man has to make is the first thousand dollars. When a man has earned and laid by one thousand dollars, he may be considered on the road to prosperity, for he has shown ability in securing this one thousand dollars. That first thousand dollars has been made by his own individual labor or self-sacrifice, but other thousands may be made by a safe or proper investment of this thousand dollars. Having a thousand dollars earned by economy and work, he may be able to start in business for himself and soon add another thousand dollars to it and then another thousand dollars until he has quite a fortune.

There are many men who seem to think they are gaining a reputation for liberality by inviting their friends to drink at the bar of some saloon. I have known men whose children were in need of shoes and warm clothing, who would at times spend a dollar in treating friends to beer or stronger liquor, which did them no good. I have known men who donate nothing to the church in order to carry on its benevolent work which may cover the whole world, yet who seek to secure a reputation for liberality by inviting a crowd of men to drink beer or other liquors.

## Two Rose Pests.

Rose bushes are much injured every year by green lice or aphids and the so-called rose "thrips" or rose leaf hopper. Both are sucking insects and may be readily controlled by early spraying with a contact insecticide such as an ivory soap solution (a five cent cake to 8 gallons of water), a whale oil soap solution (one pound to 7 gallons of water), the standard kerosene emulsion diluted with 12 to 15 parts of water, or a tobacco preparation such as black leaf 40. This latter is perhaps one of the most promising materials to be used against such pests, since it is easily diluted and there is practically no danger of injuring the foliage.

There is a great advantage in spraying rose bushes early, since this destroys the plant lice before they become abundant, cause material injury and so curl the leaves as to make spraying almost ineffective. Early treatment is especially important in the case of leaf hoppers, since the pale green, inconspicuous, sluggish young hatch from eggs concealed in slight blisters in the bark and feed on the under side of the developing leaves. They are easily killed at this time by throwing any one of the above named preparations on the under side of the foliage, especially the lower leaves. Early in June the work of these leaf hoppers or "thrips" is most evident and at that time unfortunately, the insects are very active, jump and fly readily and are not easily destroyed. It is the early treatment before there is marked injury and while the leaves are developing, that is most effective.—E. P. Felt, State Entomologist, Albany, N. Y.

Dear Sir:—Although I am not in the fruit business, I find Green's Fruit Grower very helpful. It seems like an old friend that would be sorely missed if I could not get it. It has developed within me a strong friendship for C. A. Green.—Mr. W. C. Gaines, R. 2, Kidder, Mo.

## BERRY PICKING IN NEW YORK STATE.

## Unnecessary and Vexatious Laws.

I cannot remember during a long lifetime, when so many vexatious laws have been enacted by our State Legislature and by our National Congress at Washington as have been made in recent years. In various ways, business men have been distressed and molested needlessly, giving the impression that we need in our legislative halls, more men versed in practical affairs and less theorists.

I have in mind a recent act of our State Legislature prohibiting fruit growers from employing berry pickers or fruit gatherers under fourteen years of age. Fruit growers throughout the state have in past years had great difficulty in securing berry pickers and in harvesting the apple crop. The scarcity of help has continued to increase from year to year until during the last few years a portion of the crop has been abandoned for the reason that the necessary help could not be secured. The new law referred to will reduce the numbers of fruit gatherers nearly one-half. After having many years experience, I can say that about one-half of the berry pickers employed in this state have been under fourteen years of age. These pickers have been employed only for a short period and usually during a vacation in the summer school, hence I cannot think that the welfare of the children has been seriously impaired, while the money they have earned has been helpful in many homes and the children have been taught to be industrious and helpful to their parents, and are benefited by being under discipline.

One result of this new law, I fear, will be that a considerable portion of the crop of strawberries, red and black raspberries, blackberries, currants and gooseberries, will not be harvested during the coming years, thus causing higher prices and a diminished supply. My opinion is that, considering the large number of laws passed by our State Legislature each year and by Congress, we should instruct our representatives that one of their important duties should be to protect the public from unnecessary or vexatious statutes.

Later I hear that this bill was killed, thus the law does not prohibit.—C. A. Green.

## Amount of Fertilizer for Bearing Orchards.

J. H. Hale uses for bearing orchards 1,000 pounds of bone, and 400 pounds of muriate of potash. Professor Voorhees would use for a bearing orchard, 1,200 pounds of the basic slag fertilizer already recommended; and Dr. L. L. Van Slyke, Geneva Experiment Station, recommends the following formula: cotton seed meal, 100 pounds; raw ground bone, 100 pounds; acid phosphate, 100 pounds; muriate of potash, 100 pounds.

Professor Maynard recommends a formula consisting of 250 to 500 pounds of fine ground bone, 100 to 300 pounds of sulphate of potash, and 50 to 150 pounds of nitrate of soda.

In the western part of New York, especially in the neighborhood of Buffalo, orchardists are making heavy applications of barnyard manure and claim that excellent results are secured.

It is evident from these statements that no two orchardists are agreed on any one formula or any given quantity of fertilizer. It must vary with the soil and other conditions under which the grower is working.

Fruit trees do best on limestone soil, and since many soils are lacking in lime, the addition of this element in some form is nearly always followed by beneficial results. Lime may be added in the form of unleached hardwood ashes, at the rate of from 1 to 2 tons per acre; or ground lime, air-slaked lime, or quick lime, at the rate of from one-half to 2 tons per acre. Of course, if ashes are used, part or all of the potash required is furnished at the same time, and the regulation potash application may be reduced or omitted altogether.—A. E. Stene, Experiment Station, Kingston, R. I.

## Fruit Notes

Written for Green's Fruit Grower by Jacob Faith.

Roots are the main thing for they mean life. When you plant a tree or vine, if they have good roots, good tops will be the result. The tops can be trained and trimmed not so with the roots. The roots grow down in the earth and develop the tree or vine.

The nurserymen and seedmen have toiled in their efforts to find and create new fruits and flowers which will bring pleasure and profit to the planters. New methods of propagation have been introduced, green houses have been built to turn winter into summer and electric lights have been installed to make night into day. It has been found that plants will grow under the electric lights almost as rapidly as under the rays of the sun. In all this experimenting only a few of the best plants and flowers originated have been regarded of practical value by the nurserymen.



## The Voice of Reconstruction

When a flood sweeps over a vast area, desolating the cities and towns which lie in its course, the appeal for assistance gets a unanimous response from the whole country.

With all commercial and social order wiped out, an afflicted community is unable to do for itself. It must draw upon the resources of the nation of which it is a part.

In such an emergency, the telephone gives its greatest service when it

carries the voice of distress to the outside world, and the voice of the outside world back to those suffering.

At the most critical time, the nearest telephone connected and working in the Bell System affords instant communication with distant places.

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## Special Bargain Offer in Apple and Peach Trees

Do not think it is too late to order and plant trees this spring. Our trees are kept retarded in cool cellars, thus they can be shipped and planted safely after this date. We offer special bargains in the following varieties of our largest size, first grade apple trees. Here is the list of bargain apple trees of the highest quality:

The varieties are: Wagener, Twenty Ounce, Stark (very hardy), Rhode Island Greening, Pound Sweet (largest and best sweet apple known), King, American Blush, Hubbardston Nonesuch.

## Ornamental Trees at Bargain Prices

Horse Chestnut, 6 to 10 ft.; Catalpa, large and medium size; Silver Maple, 8 to 10 ft.; Lombardy Poplar, 6 to 8 ft.; American Elm, 8 to 10 ft.; Norway Maple, 8 to 10 ft.

We offer at bargain price Elberta peach, largest size, first class.

Notice the price of the above trees. We will sell the above trees at one-half our regular catalog price. Do not delay a moment in ordering. We guarantee that the trees will be in prime condition when shipped, with the buds dormant.

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Placed on 3-4-inch standpipes 16 to 25 to the acre, in a run of 4 to 5 hours, they will, with 25 pounds pressure, distribute perfectly and evenly one inch of water in the form of fine rain. Cover four times the area of any other sprinkler, can't clog up and will last a lifetime.

Price, sample postpaid, \$2.00, or \$20.00 per dozen, f. o. b. Jacksonville. Your money back if not satisfied.

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## Mushroom Culture.

While there is no mystery about growing mushrooms, it is such special particular work that many have tried and failed. After the beds are planted it is almost entirely a question of right conditions of temperature and moisture. Knowledge of what is wanted and a careful touch are required.

The preparation of the beds also requires skill which comes from experience in handling manure. Several weeks are needed to properly mix and rot the material and it must be done in warm weather, or in a warm room. Caves or cellars are right places for this work and the winter is the best time. It is easier to keep them warm enough than to keep them cool enough in summer.

## The Worst Calamity.

The very worst calamity, I should say, which could befall any human being would be this—to have his own way from his cradle to his grave; to have everything he liked for the asking, or even for the buying; never forced to say: "I should like that, but I can't afford it; I should like this, but I must not do it." Never to deny himself, never to exert himself, never to work, and never to want. That man's soul would be in as great danger as if he were committing great crimes.—Charles Kingsley.



## FARM DEPARTMENT



## News of the Farm.

In northern Delaware a farmer netted \$153 an acre from 15 acres of tomatoes. In the same county pigs sold at 17 cents a pound, live weight; farm horses at \$275 and cows at \$95. In York county, Pa., cows brought \$107.50 each and a pair of mules sold for \$562.50. Allentown has a dairy whose products are so fine that it has a long waiting list of customers, preference being given to infants and sick people. Over in New Jersey one county is offering 200 premiums to boys and girls. The busiest men in this part of the world are experts in their hunt for insects. A country woman wants the farmers' families to unite for a moving picture service that will give new interest to rural life. The greatest farm failure in Pennsylvania is the tendency to decrease the acreage of hay and forage crops. Pennsylvania this year is using 50 per cent. more fertilizer than it did ten years ago. More orchards are being planted, more labor used. Those

these faithful and petted animals will be seen at this work. In bidding them goodbye we may wish them comfort in the future at tasks where, with reduced weight they may do good work for good feed, bedding and grooming and few blows. Fortunately for our most useful ally on four feet, cruelty to animals has been greatly reduced of late years, through good laws, good example and the service of officers and societies.

But is the horse passing because gasoline and electricity are so much in use for work and pleasure in cities and on the farm? Figures of values do not seem to indicate that he is. While we know that there now are nearly 900,000 automobiles in use along the streets and roads of the United States, and that thousands of agricultural machines are propelled by gasoline, statistics of the census do not indicate that the 20,000,000 or more horses and colts estimated to be on the farms and ranges of



The above four photographs suggest getting out into the fields and into the sunshine, which is just what the readers of Green's Fruit Grower are doing at this date. Surely we should abandon the living rooms of our houses so far as practicable and make the most of the pastures and meadows, the orchards and the woodlands, listening to the songs of the birds, to the rippling of the brooks, and seeing the glistening of the newborn foliage and blossoms. In the first photograph a young lass is embracing her pet heifer. How much it adds to the pleasure of rural life to have a pet cow, sheep, pig or horse, a pet cat or dog, woodchuck, crow, parrot or canary bird. In the next top picture to the right two little folks are sporting by the well curb where hangs the old oaken bucket. There is danger in many farm wells since their waters are often contaminated from leeching of the soil from cesspools or house drains. Look carefully after your wells and see that they are not located too near objectionable outbuildings. In the lower picture to the left two attractive young ladies indicate by their conduct that they are not city girls, for city girls are notoriously fearful of cows, but this blooded heifer does not seem to be on the warpath. In the last lower picture to the right a young girl is making herself helpful on the sunny porch. Girls should be instructed early in life of the importance of learning to do things. There are too many girls who are willing that the mother should do the larger portion, or nearly all of the work about the kitchen. I do not see how any child or grown-up girl can feel that she is a consistent Christian when she shirks work that she should do about the home unconscious of the fact that her mother is overworked.

are just a few ordinary items from the twenty-eight columns of special articles and news dispatches in today's Agricultural section of the "Public Ledger."—Philadelphia Ledger.

## Our Friend The Horse.

Self-propelled vehicles are so much in evidence now that once in a while we look intently, as at something new, at those drawn by the horse. We note the click-clack of hoofs, and when we see, in the midst of the whirl of gasoline and electric limousines, a span of mettled horses drawing a closed carriage, a landau, a victoria, or even a barouche, we give this survival of an earlier day more than a passing glance says Cincinnati Enquirer. We see the horses of the fire department jumping their fat bodies up and down in an effort to show speed as their drivers urge them to the scene of danger, and we pause to reflect that in a very few years none of

the country is a return to any considerable extent less than for former years, while their value is now estimated at \$2,000,000,000, or nearly twice as much as the valuation for 1900. But it is true that the valuation of the farms and ranches is now estimated at \$40,000,000,000, as against \$20,000,000,000 for 1900 and their products at \$8,500,000,000 per annum, in comparison with the \$4,500,000,000 of twelve years ago.

The increase of farms and farming goes on in proportion to other great means of production. Thousands of older farmers and ranchers and many of the new ones have not yet reached the luxury of the gasoline machine. There is still a demand all over the country for horses, and stock farmers can still afford to breed them for the market.

An ideal means something that you are likely to be disappointed in.

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## Floods And Forests.

By C. A. Green.

The spring of 1913 will go down in history as one of disastrous floods in various parts of this country. There has been great loss of life and destruction of property, also delay in transportation, which of itself is more serious than is generally supposed.

Rochester, N. Y., has not escaped. The Genesee river has overflowed its banks and swept through some of the streets of our beautiful city. The flood in Rochester might have been prevented, and future floods ultimately will be prevented, by the building of a dam at Portage Falls, which will store the water and thus not only prevent floods, but add to the wealth of our state by yielding a marvelous water-power and unfailing water supply.

Years ago it was claimed that the cutting away of forests, was one cause of destructive floods. Of late years, scientific men have denied that this theory was correct. But still later, practical men of large experience are claiming that the old theory was right and that tracts of timber do much to prevent the rapid flow of water which causes disastrous spring floods. It is my opinion that if our country were more freely occupied by woodlands, there would be less destructive floods. There are other reasons why our woodlands should be protected and preserved. Woodlands prevent destructive winds. They modify the temperature and are the homes and nesting places of our wild song birds, game birds and other wild creatures. It is the swamps and woodlands which hold back the spring rains and melting snows and which keep the brooks, creeks and rivers supplied continuously. When I was a boy, the brook that ran by our rural schoolhouse, continued to flow all summer, the water being held back by woodlands and swamps, but now the brook is entirely dry, except during a portion of the winter and spring. Our readers have probably noticed that all streams are more greatly reduced in volume during the summer months than in the early days.

## Strokes on The Anvil.

Editor of Green's Fruit Grower:—On the farm where the hens have run of the premises year after year sharp grit gets pretty scarce. Instead of burying our old bottles or scatter them around the premises, we put them into a gallon can, use the iron wedge as a pestle crushing the glass into bits very quickly, making choice bits of crystal for the hens. It is best to put a glove onto the hand holding the wedge to guard against bits of glass snapping your flesh.

When we bought our hand separator, we took the large box in which it came packed, made a rat-proof feed box, filled it up with a balanced grain ration made of equal parts bran, chopped corn and crushed oats, and one-fourth oil meal. This stimulates our milk supply, and helps increase the cream product.

One of our neighbors has a tile mould concrete post which is worth while knowing about. The mould is intended for making eight and ten inch tiles one foot long for drainage purposes.

He builds a foundation of concrete into the ground, where he wants his post located. Imbeds a heavy piece of iron into this foundation, sets up a tile filling it with soft concrete, adding tiles and filling until he has the post built the required height. Wire loops are imbedded at the joints between the tiles and the fence is fastened to the loops by a heavy wire rod inserted down through the loops on the post and fence line wires. These posts are the neatest thing we have seen yet in anchor devices.

Many times, steel or other metal covers get small leak holes, which might be repaired and make the roof last for several years yet.

When our steel roofs need mending, we take common asphalt roof paint, such as we use for coating the roof, brush thickly over the leak, spread on a stout piece of cheese cloth, brush over this, then lay on a small square of wire fly screen and coat thickly with asphalt paint. This makes a permanent mend which will stay. Graphite paint will also work.

Do you comb your hair with a broken tooth comb? You ought not to do it. There are enough other ways to grow bald headed without jerking our hair out with a broken toothed comb. The teeth are placed evenly in a comb by the comb-maker, in order that it may be drawn evenly through the hair, serving its purpose properly as a hair dresser. When a tooth is gone, combing is irregular, and pulls many hairs from our head. Throw away the broken tooth comb!

A great many times it is desirous of letting the barn or shed doors open a piece in order to air out the floors or crops stored, and yet, we do not like the ch

icks to invade the interior. A couple of small separable hinges may be fastened to the inside edge of the door as shown in the illustration and a slat door hung upon these hinges. When not in use, it can be lifted off and set back out of the way. We have used this device for some time very satisfactory upon our barn and wagon shed doors.

Did you ever notice when you put a handful of nails into your pocket and there is a crooked one among them, you always pick the crooked one out in using them, unless you straighten it and drive it first. The reason is because it is crooked. For the same reason, your friends pick you out if you dare to give them a crooked deal. They'll continue to pick you out unless you straighten up and give them a straight deal aimed square at the shoulder.—Geo. W. Brown, Hancock, Co., Ohio.

## Apple Spraying Experiments.

In order to show the best kinds of spray, the proper time to spray and the best way to spray apples to prevent codling moth and curculio injury, the Missouri experiment station in 1908 conducted a practical experiment upon a block of about twenty acres of Ingram apples in a large commercial Ozark apple orchard.

Three early sprays resulted in 97.6 per cent. picked apples free from curculio crescents while 45.5 per cent. were damaged on the trees unsprayed. Of these apples 99.83 per cent. were free from codling moth wormholes, 14.5 per cent. being infested on the trees unsprayed, and 97.4 per cent. of the apples were free from both kinds of injuries as compared with 46.1 per cent. from the unsprayed trees. The three early sprays by preventing windfalls also gave 45 per cent. more picked apples than the unsprayed trees. It was found that the spraying had doubled the cash returns for the crop, the net profit due to spraying amount to \$65.36 per acre, or \$7 for every dollar expended for spraying.

It is considered that three early sprays, if thoroughly applied, will be sufficient to control both codling moth and curculio under the average conditions similar to that of Missouri. Paris green was not quite so efficient as arsenate of lead and, although used with every precaution, seriously damaged the fruit by causing blackened areas about the blossom end, nearly one-fourth of the picked fruit being rejected from the first grade for this cause. The rainy weather prevailing at the time nearly all the sprays were applied intensified the damage from the paris green, but the ad joining block treated similarly with arsenate of lead failed to develop more than about one per cent. of apples blackened at the blossom end. In the picked fruit sprayed with arsenate of lead, 3.8 per cent. bore either curculio crescents or codling moth wormholes, while 7.67 per cent. bore these injuries in the plat sprayed with paris green. Including both windfalls and picked fruit, 96.18 per cent. in the arsenate of lead plat and 93 per cent. in the paris green plat were free from these injuries. This difference in cases of heavy yields of high priced fruit is thought to justify the use of the lead, even though the cost of the paris green might be slightly less.

## What They Do Now.

Among the many active and capable young men who have been at work at Green's Fruit Farm there are a few who have left us to engage in business for themselves, while the majority are satisfied to remain with us for life. One of these young men who was many years at Green's Fruit Farm, has started fruit growing for himself and has been elected to the office of justice of the peace. He is prospering. Another workman at Green's Fruit Farm was apprentice at bread making, therefore, after several years work with us, he started a bakery in which he is doing well. It is claimed that he is making the best bread in the country. Another of Green's Fruit Farm employees has purchased a farm adjoining Green's Fruit Farm. His principal business is to supply one or more of the big hotels of Rochester, N. Y. with squabs (young pigeons), also with chicken broilers, spring lambs, fruit, eggs, butter, etc.

I am led to speak of this by a subscriber who asks whether I would advise him to go into the growing of squabs, or whether I would think it would be better for him to grow fruit. My reply is that our farm employe would probably not have made a success in growing squabs if he had not had experience in that work in England. I know nothing of squabs, and my opinion is, that it requires experience in order to succeed with them, as it does in growing fruit or any other enterprise.

Mr. Charles A. Green:—I have been a subscriber to your paper for a number of years, and often one copy of it is worth to me what I have to pay for the whole year. One can not afford to be without it.—Mrs. Thos. Polaskie, Mills, New Mexico.

Sparks can not burn  
J-M Asbestos Roofing

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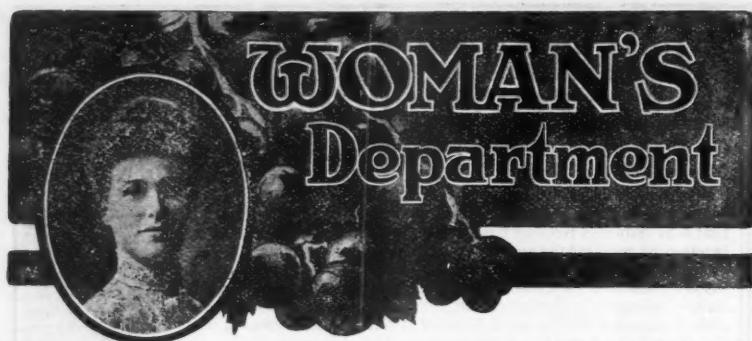
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## WOMAN'S Department

### One Dozen Housekeeping Hints.

Written for Green's Fruit Grower, by  
Miriam Sheffey, Virginia.

Are your sinks and bathtubs grimy? You can make them bright and clean.  
If you'll rub them well with borax, or a little kerosene.  
Are your looking-glasses dingy, and your window-panes?  
Kerosene will act like magic on those ugly specks and stains.

Are your water-bottles cloudy? Just rinse them out with rice.  
A little soda water, and some raw potato dice.

Has your matting lost its freshness? Would you have it look like new?  
Wipe it well with weak salt-water. 'Twill restore its pristine hue.

Is your parlor-carpet's glory a thing of yesterday? Scatter wet tea-leaves upon it just before you sweep. 'Twill pay.

Are your irons rough and smutty? Rub them thoroughly with salt.

You will marvel at how quickly this will remedy each fault.  
Have your doors the creaking habit? All you need's a drop or two  
Of machine-oil on the hinges. The result will gladden you.

When you're canning and preserving, do your hands get black with stain?  
Lemon juice or ripe tomatoes will make those fingers white again.

Are your steak and your fried chicken often much too tough to eat?  
Keep them covered w.e.l while cooking, and you'll have delicious meat.

Does your cake burn in the bottom? Put the stove-rack on the floor.  
Of your oven, beneath the cake-pan, and your cake will burn no more.

If perchance your cake is likely to be burnt upon the top,  
Place a pan of water o'er it, and the trouble then will stop.

Does your frosting run? Then follow this,—an often-tested rule—  
Never, never frost your layers until they have gotten cool.

If you want to keep lettuce, try this way: First, wrap head in newspaper thoroughly wet with water, cover this with dry newspaper, wrap up and leave on ice until wanted. This will keep it fresh for some time.

## Sweet Bits of Corn

Skilfully cooked—

## Post Toasties

—At Your Service.

Ready to eat direct from tightly sealed sanitary package.

From our ovens to your table Post Toasties are not touched by human hand.

Delicious with cream and sugar or fruits.

For sale by grocers everywhere.

Post Toasties have Distinctive Flavor

### Hints.

You can tell poison ivy because it has three leaves and a hairy stem. Look for the hairy stem, that is a sure sign. Poison sumac has white berries instead of red.

If a tin of paint has to be left open, stir it thoroughly, so as to dissolve all of the oil, then fill up with water. When it becomes necessary to use the paint pour off the water and you will find it as fresh as when first opened.

To get rid of ants and mice, smear the entrance of their holes with liquid tar, and spray the holes as far as a bellows will carry it with powered, unslacked lime.

When wallpaper is to be cleaned with medicated putties or crusts of bread, the room should first be made free of dirt. Work only in one direction. No paper will stand cleaning more than three times.

To keep summer dresses from fading soak in water and turpentine before washing. One tablespoonful of turpentine to a gallon of water.

Linen suits and shirt-waists should be washed in hay-water (made by pouring boiling water over hay), and they will keep their color for a long time.

Jelly Hint.—When new-made jelly is a little too thin, instead of turning out of the glasses and re-cooking, put the glasses in a pan, place in the warming oven until thick enough to suit.

To wash white silk gloves.—If, after washing the gloves, they are hung in a dark closet to dry, instead of out in the sunlight, they will not be discolored, but will look as good as new. This, of course, applies also to any white silk articles.

Fruit Stains.—Those that will not come out with boiling water may be removed by oxalic acid. Have it always on hand. Label it POISON. Buy it in crystallized form, put in bottle and pour water over it. Add water until all dissolves. Touch only the spots with the acid and rinse quickly and thoroughly.

Cream of Spinach Soup. Boil one quart of spinach and strain it through a colander. Melt one tablespoonful of butter and stir in one tablespoonful of flour until smooth, then add one quart of milk, a pinch of salt, and the strained spinach and boil about a minute.

Leg of Lamb for Two. Buy the smallest leg you can get. When boiled, add two bay leaves to the water in which it is to cook and save the liquor for soup. If it is to be baked place a cup and a half of hot water in a small saucepan, add one teaspoonful each of powdered cloves and cinnamon, and baste the lamb, using this instead of hot water. This adds a delicious flavor.

Gooseberry Conserve. Provide three quarts of gooseberries, one pound of raisins, two quarts of sugar, half a pound of nut meats and one quart of ground pineapple. Wash the gooseberries and boil them until they burst open. Add the sugar, pineapple and chopped raisins; boil slowly until it is thick and then add the nuts.

Easy Way to Make Lemonade. Buy lemons in large quantities, thus getting them cheaper, and after they are washed, and every bit of juice is extracted and strained, add to a rich boiled syrup made of plain sugar and water. Place in self-sealing fruit jars and place on ice. When you want lemonade, a spoonful of this mixture can be added to a glass of water with little trouble.

Canning Asparagus. Remove the tough outer scale from the asparagus, wash carefully, cut the spears the length of the jar to be filled, pack the jar closely, with the butt ends down and pack all as tightly as possible, so that as little space as practical may be left at the top. Then fill the jar with cold water to which a little salt should be added, lay cover of jar on top loosely. Place the jars in a kettle of hot water, having enough water to reach to the brim of the jars; boil for three hours,

adding water occasionally to compensate for any evaporation that may take place, and keep the jars full. Then put on the covers, screw down tightly so that all air is excluded and set aside to cool.

### Farmers' Wives.

If there is a class of women on this earth to whom should be accorded the highest honors it is the farmers' wives. While other women, so far as possible, avoid the burdens of motherhood, they are the ideal mothers. They keep the race from deteriorating. Their sons, trained to hard work and responsibility, go to the forefront in all the tremendous enterprises of to day, says Nebraska Horticultural Report. Their boys are filling our institutions of learning for an age such as never before has dawned on this old world of ours. The success of the husband has depended largely on the fidelity, labor, and wisdom of the wife. She loves the beautiful. Flowers are her delight. Now, in her declining years, let her have the very best the world affords. Let there be a procession of beauty from early spring till the hard frosts of autumn to greet her. She is an uncrowned queen, give her royal entertainment in her own home. In the floral world there is enjoyment, relaxation, and pleasure, found nowhere else. What more suitable and available recompense for one who has richly earned the highest honors? While you have 158 acres of that quarter section can't you let her have just two of them, and for yourself you can crowd into that space greater attractions than the rest of the farm affords.



The Lady:—All the big strawberries are on the top of this box. I can see that.  
The Peddler:—Well, Ma'am, if yer'd rather have de little ones on the top I'll just turn de box upside down for ye.

### To Mend Wire Screens.

To mend broken screen wire quickly and neatly cut a piece from strong wire considerably larger than the hole to be mended. Ravel the patch to the depth of a quarter of an inch or more all round, and with the pincers vend the fringe down at right angles to the patch. Then lay patch over hole, push the bent fringe through the mesh, bend the fringe down smoothly on the opposite side, and your patch will be smoothly in place.

### John Woolman Quaker.

By J. F. Newton.

Woolman took to wife Sarah Ellis, a sweet girl who was at once devoted and devout, and lived in a tiny white-washed cottage on Rancocas Creek in West Jersey. There, amid his apple trees which he planted and cultivated, he was most happy, what time he was not going to and fro spreading his gospel of purity and pity. It was a humble abode, but he was content. He regarded agriculture as the business most conducive to moral and physical health, and was wont to say that "if the leadings of the Spirit were more attended to, more people would be engaged in the sweet employment of husbandry, where labor is agreeable and healthful." He did not condemn honest wealth, but he saw that luxury rots men and deforms women.

From his little farm he looked out with a mingled feeling of wonder and sorrow upon the fret and unrest of the world, and especially was he grieved to see luxury overgrowing the early simplicity of his own religious society. He regarded the merely rich man with unforgotten pity. With none of his scorn, he yet had all the feeling of Thoreau for men who went about bowed down with the weight of broad acres and great houses on their backs. Near the end of his life he went to England on a religious errand, traveling in steerage, despite the protest of his friends, rather than endure the luxury of the cabin. There he saw the hardship of the life of the sailor, and it haunted him to the end. A storm came up mid-sea, and for a time all seemed lost, but Woolman, inwardly still, went about among the panic-stricken company giving words of cheer. It reminds one of a like day in the life of Fox when his ship was pursued by pirates, "but there was a spirit in her that could not be taken."

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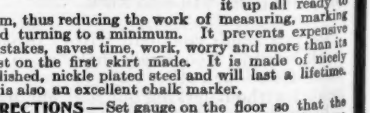
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DIRECTIONS.—Set gauge on the floor so that the skirt will fall over the long wire, making it come under or inside of the skirt. Fold the goods under, so that the long wire will come inside the fold, as shown in illustration No. 1 and pin the hem in place. Slide the gauge along and repeat. The Ezy-Hem can easily be used as a chalk marker also. Place the gauge with the long wire finger outside and against the goods, and simply draw chalk along the wire lengthwise, using the wire as guide or rule.

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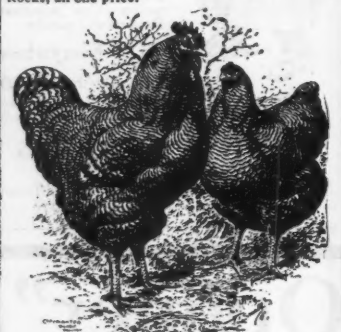
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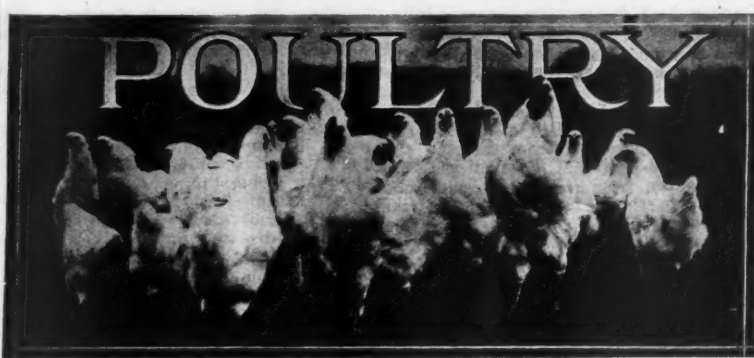
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When you write advertisers please mention Green's Fruit Grower.



### The Hen And The Wheat.

Said my wife last year, all smiling and sweet, "I'll make more with my chickens than you with your wheat." "Ha! Ha!" laughed I, "you think you are funny. But chickens won't bring you so very much money." "You're afraid" said she, "you're afraid to try it. I want a new dress, if I win will you buy it?" Well now, you know, I won't take a bluff—So I said, "if you win I'll come down with the stuff."

Then time went on, I'd forgotten the bet, just as well that I had, for the season was wet. I plowed and I dragged, and worked at my haying. And the whole blessed time, those chickens were laying.

Said my wife one day, all smiling and sweet, "My chickens are fine dear! how is your wheat?" "Bless my soul," I replied, "I'd forgotten the bet. You know yourself, that the season is wet." —Mrs. F. E. Riley in The Farmer's Wife.

### The Hennyery.

In hot weather, renew the water two or three times a day and keep it in shade.

Don't let your supply of insect powder run short. Use it regularly and liberally.

According to the New York Experiment Station, the cost of food, per chick, to weigh one pound, on ground grain, is three cents; on whole grain, three and seven-tenths cents.

Eggs deteriorate rapidly in the pantry or kitchen these days. Keep them in a cool place.

Properly conducted the poultry business will give a fair profit, steady work, and a good living for the average man.

Not enough shade in some chicken yards. Hens need a shaded loafing place when they go around with their mouths wide open panting for breath.

You can tell a laying hen as far as you can see her. Her comb is always bright and healthy looking.

Provide all the poultry with plenty of grit, and clean, fresh drinking water twice a day, for remember they cannot go to the well and get a cool drink as you can.

Move the chicken coops, at least, every other day, for the filthy droppings that accumulate will poison the blood of the young chicks, causing a host of diseases.

Soak stale bread in sweet skim milk, press out the milk as completely as possible, and feed the chicks. Also keep coarse sand before them; without it the chicks can not grind their food.

Eggs should be sold by weight rather than by the dozen. They vary so widely as to size and weight that the seller or the buyer is sure to lose when sold by count. If sold by the pound, both get justice because if the eggs are small it requires more to weigh a pound.

### \$800 Is Paid for a Hen.

Springfield, Mo.—"Lady Chow You," a White Plymouth Rock hen that won the national egg laying contest at the State poultry station, Mountain Grove, Mo., this year, was sold here today for \$800 by J. A. Bickerdite, of Millersville, Ill. The hen has a record of laying 281 full-weight eggs this year.—Public Ledger.

### Poultry for Boys and Girls.

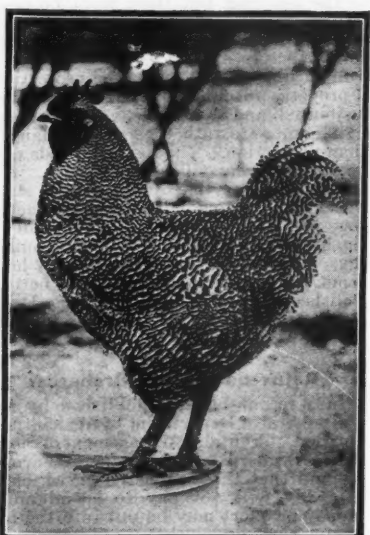
Boys and girls on the farm should be taught practical business from earliest years up. In no line can these business habits be better acquired than in the production and marketing of poultry. Give the small boy one or two hens to look after and as his years and skill advance increase his flock or rather allow him to do so from his own raising. The sister may be allowed a similar privilege, or she may work in partnership with her brother. Each may find certain features of the work more congenial and thus divide on that line. If they show aptitude they may in time be allowed to take charge of the whole poultry plant of the farm with the agreement that the family table shall be supplied free of charge with so many eggs and so many fowls per week, during the season, and the rest to be marketed for personal profits and as pay for work and management. Of course any modifica-

tion of this plan that seems advisable under the circumstances may be adopted. The great point is to teach the young folks thrift and business habits and at the same time secure efficient care of the farm poultry.—Pacific Homestead.

### Clean Regularly.

The insignificant hen mite or red spider does millions of dollars of damage, every year to the poultry industry, and these little animals increase at an amazing rate in the houses that are not cleaned at regular intervals, says Inland Farmer.

So much easier to clean a house when nests, roots, etc., are movable, and when these furnishings are moved out we can do a better job of cleansing walls and floor. We have one house with a dirt floor. The men go down deep and get out the old



**Plymouth Rock Cockerel.** If I were asked to mention the one breed of poultry which is most popular throughout the country, and justly so, I would mention the Plymouth Rocks. These are large birds producing large eggs. Plymouth Rocks are beautiful objects roaming over the home grounds and are quiet and orderly in conduct. No one can make a mistake in selecting the Plymouth Rock as the bird of the farm.

dirt and fill it with clean fresh earth. We like the board floors. We can clean them without the men's assistance when the task is not postponed too long.

With a spray pump it does not take long to apply a coat of whitewash to the walls. Don't worry if some of the wash gets on the floor. If it is a board floor the lime will discourage the mites that often harbor in the cracks and corners.

Coal oil and crude carbolic acid is a cheap effective disinfectant if you have had diseased fowls. Coal oil alone, applied to roost poles and every crevice and corner where lice can hide and breed will keep these tormentors from doing any great execution. Do, friends, I urge you, try the coal oil treatment for lice. We give roosts and supports where mites have any chance to hide a coat of kerosene once a week from now on until autumn, keep nests clean and set no hens in the hen-house. In this way we keep the mites (that do their deadly work at night) under control. I am getting off my subject, but I want to say right here that if you are not fond of fighting lice don't allow a single hen to set long enough to hatch chickens in the house occupied by the layers.

How proud and pleased we feel over a clean house, and how happy the hens seem as they snuggle down in their clean nests. After giving the poultry house a thorough cleaning at this season it is not difficult to keep it clean if we will look after the work at regular intervals and not put it off too long. 'Tis said we can always find time for the things we want to do, but it does seem hard for the farmer's wife to get this work done; especially when one is not very strong, has little children, and men folks are too busy or not enough interested in chickens to help.

### Caring for Your Chickens in Summer.

While admitting that the first few weeks of a chick's life are ordinarily more critical than those occurring after the chick has attained the age of five or six weeks, still a chick is by no means raised when it is two or three weeks old, says Profitable Farming.

After my chicks have reached the age of four or five weeks, they are fed three times a day; chick feeds or mixed grains and seeds in the morning; cracked corn at noon; and all they will eat of a dry mash, consisting of a finely-cracked corn, bran, middlings, and a little oil meal, in the afternoon or evening. To be sure, there are thousands of chicks hatched out annually that don't know what mixed animal food or mash is, and my chicks would merely be living on the same diet as the majority if their ration consisted of corn in the morning, corn at noon, and corn at night. But, other things being equal, such chicks are not as thrifty and vigorous, nor do they grow as fast as those fed a more varied ration—one which they like better and which is better adapted to the requirements of the growing chick.

No matter how strong and vigorous a chick may naturally be, it can't successfully withstand much of a siege of lice.

Good care presupposes clean quarters. Filth allowed to collect in any quantity, no matter whether in the brooder, roosting coop, or even in the yard, lowers vitality and invites disease. You cannot clean up too often and too carefully.

Good care includes the supplying of some sort of green food.

### Moulting Hen.

Some people make a dreadful fuss about the poor moulting hen, while this moulting process is just as natural as it is for a hen to live and breathe and no more critical than the laying stunt, provided the hens are fed enough to keep up the waste of the body and at the same time manufacture the new feathers, says Field and Farm. The sooner the feathers are grown the sooner the eggs will come and to hurry them along as fast as possible the fowls should be fed liberally. Give them all the mash they will eat and a good feeding of grain at night. To many folks it looks like throwing away money to practice heavy feeding while no eggs are coming in, but this is one of the secrets of getting winter eggs. The moulting season is the most critical period in the life of a hen. Growth of new feathers is a heavy strain on vitality. As the hen is fed on the average ranch it requires from two to four months to recover from the effects of it. By giving the necessary materials with which to make the feathers so that a hen will not have to take them from the tissues of her body, she will be ready for work as soon as she has her new plumage and often before. Pullets should be handled in the same way. They are not yet fully developed and will not begin to lay until the amount of food they consume is enough to support growth with a surplus to go into something else.

The day before she was to be married the old negro servant came to her mistress and entrusted her savings in the latter's keeping.

"Why should I keep it? I thought you were going to be married!" said her mistress.

"So I is, missus, but do you 'spose I'd keep all dis money in de house wid dat strange niggah!"

## Important to Buyers of High Class Poultry

**PRIZES TAKEN:** At the recent Poultry Show held at Rochester, N. Y., one of the largest ever held in this part of the country, Green's Nursery Co. were awarded several prizes, 1st prize on cockerel and first prize pen Single Comb Brown Leghorns. Here is evidence that we are leaders in Brown Leghorns. We can sell you any priced bird you need from \$2.50 up to \$25.00. Whatever money you send us will be carefully considered and we will see that you get the worth of your money whether you pay a small price or a larger price.

**ABOUT OUR BARRED PLYMOUTH ROCK BIRDS:** We have just added a fine lot of Barred Plymouth Rock cockerels and pullets from the celebrated strain of Haldie Nicholson. These birds are from the poultry specialist who has taken prizes at New York and Boston. Some of these birds will be offered for sale. Please notice that our prices for Barred Plymouth Rocks are \$2.00, \$2.50, \$3.00, \$5.00 and \$10.00 each according to grade.

We are constantly hard at work improving our strains of poultry and can assure you of satisfaction should you favor us with your order.

**BIRDS ARE CAREFULLY CRATED.** We have had experience for nearly twenty years in shipping birds and have thus far been eminently successful. Our birds have gone safely thousands of miles, some of them crossing the continent and arriving in good condition.

**Green's Nursery Co.**

Poultry Dept. Rochester, N. Y.



## LARGE NEST EGGS INCREASE SIZE OF HENS' EGGS.

Result of Interesting Experiment at Penn Yan.

An exhaustive experiment has been made upon the Ozone farms, on Bluff Point, owned by Messrs. Struble and Bush, which apparently demonstrates the fact that the nest egg can be made an important factor in increasing the size of hens' eggs, says Democrat and Chronicle.

Twelve pullets of the same strain and of the same age were used for the experiment, which was begun one year ago before the pullets had begun to lay. They were equally divided and each six kept in a separate compartment and away from all other hens. Bantams' eggs were used as nest eggs for one lot and large goose eggs for the other. As soon as the pullets began to lay Mr. Struble found that the ones which had goose eggs for nest eggs laid larger eggs than the others, but not so many. Later there was more difference still in the size of the eggs but less difference in the number.

At the end of the year of the experiment which ended on January 17th, the hens which had goose eggs for nest eggs had laid four per cent. less eggs than the others, but the total weight of the eggs laid by them during the year exceeded the total weight of those laid by the others by seventeen per cent., which made the average egg laid by the goose egg hens 22 per cent. larger than the average egg laid by the bantam egg hens.

Mr. Struble has become a firm believer in large nest eggs, and on account of the difficulty of securing a sufficient quantity of goose eggs for all his nests has arranged with a pottery to furnish him with a gross of nest eggs much larger than the ordinary commercial size.

This is only one, but perhaps the most interesting, of many experiments with poultry which have been made on the Ozone farms under the direction of Messrs. Struble and Bush, who are enthusiastic importers and raisers of rare fowl, and whose ten-acre guinea fowl park, with its thousand guinea fowl, is the most distinctive feature of the farm.

## Poultrygrams.

Be sure you have a hopper containing grit, charcoal, and oyster shells hanging on the wall of the chicken house. Grit helps the chicken digest its food, charcoal keeps its bowels in good order by absorbing gases, and oyster shell makes egg shell.

Fresh water is best for chickens, despite the fact that they will drink dirty water even though you have provided the fresh. If possible keep them away from the dirty water; it will spread disease.

Another thing chickens like to do is to lay eggs in odd places on the range, in a barrel or a box. Take a look around once in a while.

Be careful in feeding too much corn. Give variety. Add some buckwheat, oats, barley, and the like.—New York Globe.

## Success Secured, Little by Little.

Written for Green's Fruit Grower by Charles Everett Warren, M. D.

Despite not the day of small things for nature's time-table is a multiplication table.

Time and tide may wait for no man but any man who waits patiently and hopefully for the passing of time and the tide may wait to some good end and purpose.

Travelers by the sea may glean their fire-wood from the shore but drift-wood does not come in by the cord at a time but bit by bit and that collected, in the aggregate amounts to many cords.

So with the farmer, great or small, with animal and plant or tree life. One begets many in the course of time.

One great reason for failure among many of the agriculturally inclined is the desire to do things on a grand scale, to do a wholesale business, rather than a retail, and failing that they do nothing. They plan what they will do, when they can afford to, and never realize any fruition. Others, less ambitious, begin in a small way, and in the course of the years, and not many at that, realize that which the others have planned and never attained.

If one is inclined to poultry and limited in means it is pleasant to study about incubators, ready-made hen-houses, and other accessories, to be well read up against the contemplated purchase in time to come—which never comes. This man meditates, year after year, contemplates the purchase of say fifty hens, when the time comes, and there his hennery ends. The aggregate cost is prohibitive.

On the other hand one may buy two setting hens at \$1.50 each and two settings of eggs at \$1.00 each. The chances are that at least twelve chickens will hatch out. The hens will begin to lay again in a few weeks after leaving the nest and should give at least six eggs a

week between them. The chickens will be grown in six months and if they average one-half cockerels in number, these may be sold for at least \$3.00; if, as they should, then weigh at least four pounds each. This reduces the cost of the two hens and six pullets to \$2.00 or 25 cents each.

During the season these should lay at least two dozen eggs a week which, at 25 cents a dozen, amounts to 50 cents a week, profit or saving, as the eggs are sold or kept for domestic use, making a total of 100 dozen a year or \$25.00 a year or 1,250% interest on the original investment.

This is eliminating any expense for food, upon the basis that the hens be allowed to grub for themselves during the summer and be given the kitchen scraps. If, however, we allow an average expense of 25 cents a week for food this will reduce the profit to \$12.50 still 625 per cent. on the investment.

The next year there will be no expense for setting hens and none for settings of eggs, provided a rooster has been kept for breeding purposes and the flock will be largely increased. If we set four hens—even if we have to buy one or two—we shall have at least twenty-four chickens and allowing twelve pullets we shall have a flock of twenty laying hens in their season. In the third year we shall set say eight hens and have forty-eight chickens, half of them pullets, making a total of 44 laying hens at an original cost of two dollars.

Meanwhile the housing of the flock will demand something more elaborate than a thrown-together make-shift of old odds and ends, but the flock already raised will more than pay for this expense. And, on the other hand, if, for any reason, the poultry question should not meet expectations, the loss if any, will be small.

Moreover, the man who begins in this way learns as he goes along and his mistakes and experience will be to his advantage in caring for the flock as it increases to larger proportions. Whereas, the man who starts in with a large number of hens and no experience suffers greater loss from diseased and ill-cared for fowl, and will doubtless soon join the ranks of those who proclaim that "Poultry Doesn't Pay."

His loss will be at least \$50.00 for hens, \$50.00 more for housing, and the Lord only knows how much for fancy frills.

Another man meditates often and long on a strawberry bed. He figures upon setting out several hundred plants which, together with the cost of labor in preparing the bed and fertilizing it, amount to such a sum that he cannot afford it "this year" but he surely intends to have one next year—and so the story goes.

This man's neighbor buys a dozen or so of strawberry plants, and expects no crop at first. But, in due time and season he has runners by the hundred and lo', and behold! while his neighbor is still meditating he has fruit enough to supply his own and his neighbor's needs and some to spare.

Just so with raspberries. A few plants set in the spring will not bear fruit that year but will multiply quickly and if properly set will soon give more fruit than may be desired in the family—sufficient to sell plants to the neighbors to say nothing of the fruit.

Everyone says an orchard is a good thing to own. And no man is too advanced in years to set one out, for though he himself never lives to see the young trees come into bearing, he will leave a goodly inheritance.

Many a young man with years before him, dies at a mature age, with his meditated orchard nothing but a dream of what he would like to do. He studies catalogues from year to year with the intent of buying a few hundred trees, but the task of preparing the land is beyond his means and so his apple or pear ideas are barren of results.

Another man buys a dozen trees and sets them out himself. The next year he buys another dozen and so on until when eight years have passed, he has one hundred trees allowing that some one has given a few baker's dozens. This man's orchard is actually bearing fruit while the first mentioned man's orchard is still a thing of dreams and visions of what might be.

There is a characteristic of man underlying this habit of procrastination other than the desire to do things on a great scale, yet dependent upon it. It is the idea that it is mean to buy anything in small quantities. A false pride to appear to buy by the wholesale rather than by retail. The man who buys trees by the hundred sends a four-hour horse team after them and the man who buys a few smuggles them home after dark by the by-ways, if he is tormented by this false pride. He is ashamed to buy a penny's worth of anything and if he cannot buy a pound's worth, goes without any. Yet it is as foolish an idea as for a man to refuse to step off his own premises because

he has no carriage and pair but has to go afoot.

There seems to be another false idea that a nurseryman or seedsman sneers at a small order, but it is the small orders that build up the trade. Nor does the nurseryman send out his poorest stock and culls on small orders; if he should show any partiality it would be to the one who sent a small order to encourage him to send another.

During the winter months it will be pleasant reading to look over the nursery stock catalogues and to plan what may be. You may set your whole orchard—on paper—but do not let the matter end there. If you plan for fifty trees, eventually do not put off planting because you can afford but ten trees. Stake off your orchard lot and prepare the ground for ten. Order these ten trees in time and when they arrive, lose no time in putting them in place. Don't neglect to order a few strawberry plants and other berry plants and grape vines.

The next year repeat the purchase and in five years time you will have a good orchard, a good strawberry patch, a raspberry plantation, and other small fruits in abundance far greater than to supply home needs, thus giving a surplus for profit.—Leon Noel, Mass.

## Humming-Birds and Others.

Written for Green's Fruit Grower.

A man who, for one cent, would kill a humming-bird would be esteemed by most of the readers of this paper as the limit of human meanness. He certainly is most unlovely and, unfortunately, he has a real existence. But how about the person who pays him the cent and sends him forth on his sickeningly cruel mission? Who does this? Who, indeed, but the American woman with a humming-bird in her hat!

Our laws do not allow the killing of humming-birds on our own territory. But during the months of winter they fly far beyond our limits, their little wings bearing them in the long and weary flight across the seas to the West Indies and Central America in order to escape the frosts of our winters, which their delicate frames cannot endure. So they gather in those sunny lands, thousands on thousands flashing from flower to flower, waiting until the season will permit them to return and be the delight of our own gardens.

But some of them will not return. Half-naked, mongrel natives are out looking for them with nets. They catch the fluttering little victims, kill them with a brutal twist of the neck, throw them into a bag and, after a day's work of this kind, squat in their dirty huts and prepare them to send to the market. Surely, you would think, they must be well paid to engage in such heartless and ignoble work as this! Let us see.

According to the official figures obtained by the New York Zoological Society and printed on Page 124 of "Our Vanishing Wild Life," written by Dr. W. T. Hornaday and published by that society, the prices paid for humming-birds in the London feather market range from one to two cents each for choice specimens of rare species, while the commoner kinds, including our own ruby-throated garden pets, range all the way from a cent down to thirty-two for a cent. It is awful, but it is a fact! And one London firm in a single season sold more than forty thousand humming-birds at such prices as these!

There is only one way to reach these wretches and that is to stop the market for their victims. There is a proposition now before congress to stop the importation of the skins of wild birds for millinery purposes. This will put an end to the killing of humming-birds, so far as the American market is concerned and will also save millions of our beautiful birds now being exterminated to make fortunes for feather dealers. Our tanagers, orioles and, in fact, nearly all of our most beautiful birds spend the winters beyond our shores and protection. We allow the ignorant natives of those countries to kill the birds we have kept through the summer and then allow French and English dealers to ship the little corpses to our shores and take away good American dollars in exchange for our own stolen and murdered birds.

If you think this wretched business should come to an end, write to your congressman at Washington, D. C. and tell him how you feel about it. Ask him to support the measure to stop the importation of bird skins and save our beautiful birds before it is too late. Don't wait until you forget it. Write at once and have the satisfaction of feeling that, whatever happens, you at least are not to blame.—Thomas M. Upp, The Backwoodsman.

How the time drags when we are idle; but how it flies when we are working hard at something worth while.

## Big Crops by Fertilizing

Use nature's best fertilizer, the highly concentrated, pure

Sheep **WIZARD** Manure

Dried and Pulverized

No Weeds, No Waste. Economical and Convenient. Big yields are produced by Wizard brand because it is a concentrated, natural fertilizer.

Write for interesting booklet and prices in any quantity from one bag to carloads of 15 tons minimum.

THE PULVERIZED MANURE CO.  
27 Union Stock Yards, Chicago.

Perfect Exterminator for Gapes, does not harm the little chicks. A money back guarantee, by mail 35c. E. FISHER, Attica, Ind.



## Fruit and Poultry Pay Well Together

The busy time for poultry is the easy time for fruit. Quinces, plums and cherries in poultry yards help the poultry and produce great crops. Plant grape vines around runs and poultry houses. They give shade in summer and bear paying crops in the fall. It pays.

GREEN'S FRUIT GROWER tells you how and where to plant, how to prune and spray, and how to make your fruit trees most productive. Mr. Green has piloted many orchardists.

One of our subscribers writes us that he got \$596.91 net from five acres of strawberries.

Another one got \$240.64 net from two acres of raspberries.

Another one got \$490.66 net from two and a half acres of cherries.

This is better than growing wheat at \$1.00 per bushel, thirty bushels to the acre.

Charles A. Green, the man who, over thirty years ago, discovered that fruit growing was the best and most profitable way to occupy land, has written an intensely interesting and highly instructive book, "How I Made the Old Farm Pay." It is worth many dollars to any fruit grower or farmer. It is a story of Mr. Green's actual work and its results. YOU may follow its methods and teachings and make your place much more profitable.

## Our Special Offer

Send 50 cents now and get GREEN'S FRUIT GROWER for twelve months and Green's booklet, "Thirty Years with Fruits and Flowers." Or send us \$1.00 to-day and we will send you GREEN'S FRUIT GROWER every month for thirty-six months and Mr. Green's famous book, "How I Made the Farm Pay." Or send 10 cents to-day for three months trial subscription and get Mr. Green's book, "How I Made the Old Farm Pay" free.

Send your order to-day, as the subscription price must be advanced.

SEND NOW AND BE GLAD LATER.

Green's Fruit Grower Co.

Dept. A. Rochester, N. Y.



The January, 1913  
"Brim Full" Number.



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of designs, sizes and many styles. We sell direct, saving you middleman's profit. Give size of roof; this may lower cost.

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Sold direct from factory at factory prices—freight PREPAID—post-al brings special price and latest catalog 654 by return mail. Give size of roof if possible.

THE EDWARDS MFG. CO.  
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Cincinnati Ohio

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We manufacture berry, grape, cherry, and peach baskets as well as diamond market, bushel staves, lettuce hampers and celery baskets. Our goods are made to comply with the laws of the State of New York. Write for catalogue and price list.

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Oxford, N. Y.

## Hamilton Made Spraying Hose

will spray your trees without trouble or expense for several years for one cost. One trial sufficient to convince.

### Perfect Spraying Hose

Every length will stand 600 pounds and guaranteed for 300 pounds.

1/4 inch, per foot.....15 cents  
3/4 inch, per foot.....14 cents

### Vulcan Spraying Hose

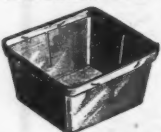
Stands 350 pounds, guaranteed for 100 pounds working pressure.

1/4 inch, per foot.....12 cents  
3/4 inch, per foot.....11 cents

All coupled complete, 50 foot lengths, freight prepaid. Order from your dealer or shipped direct from factory, cash with order.

Hamilton Rubber Manufacturing Co.  
Trenton, New Jersey

### THE BERLIN QUART



OUR SPECIALTY

A white package which insures highest prices for your fruit. Write for 1913 Catalog showing our complete line, and secure your Baskets and Crates at winter discounts.

The Berlin Fruit Box Company,  
Berlin Heights, Ohio.

## Give It a Trial

German Distemper Remedy for distemper, coughs, colds and worms in horses and stock. Price 50 cents a bottle at all druggists or we will send it prepaid upon receipt of price.

German Distemper Remedy Co.  
Goshen, Indiana.



## Standard Berry Boxes

Price: Quarts or pints \$3.75 per thousand. \$3.50 per thousand if ordered in lots of three thousand or more. We can supply you with all kinds of fruit baskets for Berries, Currants, Cherries, Plums, Peaches, etc.

### A Complete Line of Garden Tools

Send for our Catalog of GUARANTEED TOOLS.

GREEN'S NURSERY COMPANY, Service Dept., ROCHESTER, N. Y.



### SUCCESS ON A RUN DOWN FARM.

#### Propagating Black Raspberries.

J. H. B. of N. H., writes Green's Fruit Grower, that he is a reader of "How I Made the Old Farm Pay" and of Green's Fruit Grower, and is particularly interested in Mr. Green's early struggles on his fruit farm, for the reason that he also left his occupation in the city and went on to an old run down farm with a family of six, with practically nothing to work with but his hands and head. He has succeeded with poultry and strawberries. He sympathizes with our Editor in the view he takes of fishing and hunting.

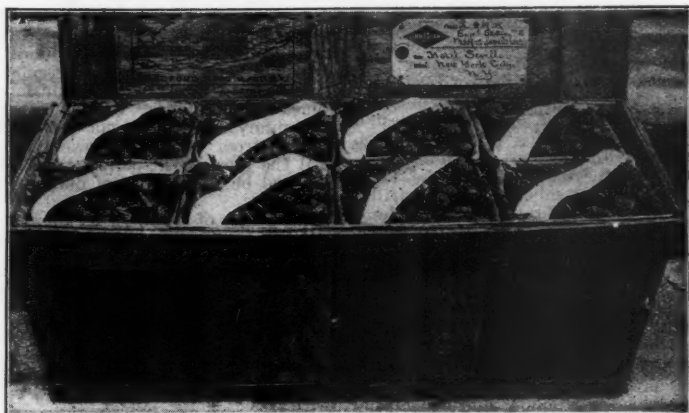
We can all appreciate the satisfaction which a man of this kind takes in his farm home and in the success which he has achieved after a hard struggle. During the summer, we can imagine such a man walking over his fields with proud steps, watching the growth of his plants, vines and trees, the unfolding of the leaves and blossoms, and the growing and ripening of the tempting fruits. During the dreary winter months we can imagine him sitting before his fireplace reviewing his years of toil and privation and the help and enthusiasm given him by his industrious wife and children. We can feel sure that he is taking an interest in the rural local-

where they are until the following spring when they can be taken up with a branch six inches long attached and planted. Or the young tip plants may be left undisturbed until the germ has sent up a green growth of three or four inches when the plant may be set out the same as a tomato plant with as much earth left on the roots as possible.

#### How Will You Handle Your Berries?

Growing berries successfully is one thing, and selling them at a profit is another and very different thing, says The Wisconsin Farmer. The successful cultivator is not always the good salesman. There are several ways of selling the berry crop, and each way is preferred by some berry men because of certain conditions which seem to make that way the best for them. Possibly you have a neighbor who has his way of selling his surplus, but do not hastily jump to the conclusion that his way is the best way for you also. It may be that your situation is different.

Some berry growers who despise any small business like retailing will pack up their berries and sell at wholesale to the merchant. Perhaps if it is convenient they will send at once to the commission man of the city. Of course, they are pre-



Here is a photograph of an attractive case containing eight quarts of strawberries. Notice the label naming the variety, which appears as a band across the top of each quart box. I do not see how any housekeeper can resist purchasing when such a nest of quart boxes is presented at her door for sale. I have in my early years been a seller of various kinds of fruit such as we have produced at Green's Fruit Farm. I have found the peach, grape, blackberry, raspberry, currant and the apple, pear, plum and quince quick of sale when presented in good condition and in attractive packages, but I must concede that there is no fruit which is more readily sold from house to house than the strawberry. This is indeed almost an irresistible fruit. It may be called the poetry of fruit. Whenever I speak of the strawberry I am inclined to call it the poor man's berry, since it furnished me with ready money when I was making a start in the world and when I greatly needed help. There are hundreds of thousands of poor men in this country who might greatly benefit themselves financially by planting even a small part of an acre of strawberries in their home gardens. These men do not realize that they need not be located in or near a large village or city in order to find a market for nice, freshly picked strawberries, for strawberries can be sold not only in the villages and cities but to the farmers in the open country.

ity where he is now living, that he is trying to promote the welfare of the local church and district school, that he is interested in good roads, that he is trying to make friends with his neighbors, and that the locality is benefited in many ways by his decision to move to that particular locality.

This reader asks for more definite information in regard to propagating black raspberry plants, to which C. A. Green replies as follows: As soon as the canes of the black cap raspberry are long enough to reach the ground, usually early in July, we dig a slanting hole in the ground three inches deep, insert the tip of a branch into this hole, fill the hole with earth and press the earth firmly with the foot to hold the tip in place, leaving the tip attached to the mother plant. Every tip long enough to be thus buried is made use of. A week or two later, other shorter tips may have grown long enough to be layered in the same manner. Roots will be sent out from this buried tip without delay. The young plants may be left

pared to take whatever the commission man in the goodness of his heart is willing to send them, be it more or less and usually it is less.

It pleases your local grocer to have you willing that he should handle your crop, you, of course, standing all the loss from the berries which are left over. He will be willing to allow you a wholesale price, and will retail them at an advance of about three cents a box. Also he will ask you to take your pay in trade. In good nature and glad that he is willing to take the work of retailing the fruit off your hands, you agree to this proposition. So you get even less than the face price for your berries because you allow your dealer from 7 to 15 per cent. profit upon the goods which you take.

There is a better way than this, that is, a better way for the berry grower. This way is good enough for the local merchant and he will never complain as long as you agree to it. The better way for the grower is this. Sell your berries to the consumer from your wagon. This is the way to profit. There is no other way to compare with it. It is the way of the successful man. Many a farmer near town who has boys, and who likes to grow berries, can start the boys upon a successful business career by allowing them the use of a horse and spring wagon. An active, ambitious boy who has reached the age of from twelve to fifteen years, where he begins to feel the need of cash, and a growing desire to make it for himself, will jump at such a chance. Encourage him to pack the berries in an attractive manner. Let them be sorted to an even size and only good fruit be used, every berry being

solid and usable. Cover the cases for the drive so that no dust shall soil the fruit. Use colored and fanciful cut tissue paper to improve the looks of your load. Such things attract and hold the attention of the lady customers. Take certain streets, calling at every house, and tell the people that you will visit them every day or every other day, as the case may be. Make a list of the people who are buyers, or probable buyers; have your name stamped upon every box sold. It is important that they should know your name. "John Jones, Berryhill Gardens," or "Will Smith, Strawberry Glen," will do much to make friends for you and win confidence.

By the second or third trip you will have weeded out all the people not willing to trade with you, and will have your list of customers pretty well settled. Do not be afraid to trust, but tell them it is all right if pay comes at stated intervals. You will find many whose money comes in at some monthly pay day, and who are just as good as the gold and just as honest as you are.

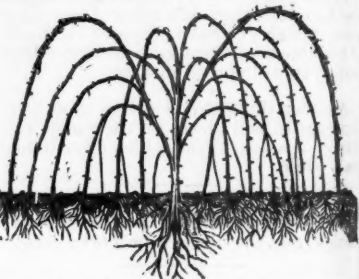
You will soon come to enjoy your business, and the buyers will be glad to have you come. The assurance of fresh fruit, and at a price no higher than is usually paid for the stale article from the grocer will bind them to you with hooks of steel.

The boy will realize upon the average three or four cents more per box than would be possible under the wholesale way of marketing. And that means that your crop will bring you a third more than before. And besides you have done your boy a world of good, for he has acquired business experience, has learned how to meet people, and sharpened and developed his instinct for trade. In a few days now the berry fields will be green and after a few more days white and then in two weeks they will be red with the ripened fruit. Prepare now to make the most of your opportunity.

### How to Propagate the Black Raspberry.

Many of our readers will not know what the above cut represents until we explain. The cut was made for my little book "How to Propagate Fruits, Plants and Vines," which has been made a part of my newer booklet, "How We Made The Old Farm Pay." The cut is intended to illustrate and tell how to propagate the black raspberry.

In July, or as soon as the canes of the black raspberry plant are long enough to bend over and reach the ground, we bury the tip end of each cane two to three inches deep in the soil, cover them with



earth and place a stone over the earth to hold the bent branch in position undisturbed from the parent plant. There is no difficulty in securing from six to ten plants from the canes of a black raspberry bush as they naturally grow. But if you will nip off the tip of the young canes in June and plant, each cane will make from six to ten canes and in this way you can greatly increase the number of tips to be buried for the purpose of making young plants for transplanting the next spring. So that if the tips have been increased by nipping back as suggested the ground about the parent bush may be filled with the roots of the young plants by October. When digging the plants the next spring the canes are detached from the parent plant, leaving the stems four to six inches long on each plant.

### Growing Room for Strawberries.

It is a mistake to plant strawberries or other small fruits too closely. The average strawberry beds are planted so close that the plants have to fight each other for existence.

A great many people are under the impression that our garden strawberry is of European origin. Not so; it has been proven that it is derived from the Chilean berry which is native to the Pacific coast.

As a rule the cheap thing proves the most costly in the end. On the other hand, a high price paid for a cheap thing adds nothing to its durability.

"The farmer, because of an innate hatred for anything serpent-like, invariably kills a snake when he sees it. So doing, he slays one of his best friends, for the reptile enters the field for the sole purpose of clearing it of the mice which are playing havoc with crops."

Letter  
"Prudent knowledge"

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### Letters From the People.

"Prudent questioning is the half of knowledge.—Proverb.

#### We Will Simply Let Him Worry.

Written For Green's Fruit Grower, by Jacob Albert Raiser.

How to get away from worry  
Is a worry in itself,  
And it makes a fellow sorry  
To lay old things on the shelf,  
For they long have been companions,  
And are sort of friends to him,  
So he often clings to worry  
Tho his worries worry him.

Tho he quaffs from life no sweetness,  
And he sips no honey dew  
From the blossoms by the wayside,  
Fragrant, as he worries through,  
He will ever cling to worry,  
Tho it worries him to death,  
And is lost the sweetest portion  
Of the summer's honey breath.

Tho he might go out and tangle  
In the buttercup his toes;  
Or in summer time be poking  
With the bumble bee his nose  
For the honey sweets in roses  
Blushing in a gay parterre,  
Where is not a single worry,  
Nor is found a single care.

#### Overloaded Peach Trees.

Mr. C. A. Green:—I have a thousand peach trees which are overloaded with bloom, they need pruning, as they were neglected last year. I would like to know whether I could not prune them now and thereby thin the fruit to some extent; two years ago they were just the same as now, so many peaches on them that they were small and not ready sale. Help is very scarce here and it would be impossible to get them thinned.—Mrs. E. Lewis, Indiana.

Reply: Yes, it is an easy and desirable way to thin the fruit on peach trees by cutting off at least half or two-thirds of last year's growth. Remember that the blossoms of the peach all appear on last year's growth, thus if a large portion of the new wood is removed it will answer the purpose of thinning the fruit that would appear this year. The earlier this cutting is done the better. It should be done before the trees leave out but at least half of the branches of new wood can be removed even after the trees are in leaf. The same result would occur from cutting out entire branches but this would be more injurious to the trees.

#### Don't be too Hard on the Nurserymen.

Editor of Green's Fruit Grower:—Every year there are patrons of the nurseries who feel like complaining that their orders are not filled with sufficient promptness. Some one has said that if we knew all of the circumstances of all the affairs of which we complain there would be no faultfinding. I am confident that if those who order plants, vines and trees knew of all the trying circumstances connected with the nursery business they would be inclined to be charitable and to accept the best that the nurseryman can do for his patrons.

It is for the nurseryman's interest that he should fill his orders as promptly and as carefully as possible, but remember that unlike all other lines of business, which can be continued throughout the year, the nursery business is confined to a few weeks of unsettled spring weather. The nurseryman must do all of his business, all of his packing and digging in a brief space of time.

One thing is lost sight of by planters, that is the fact that nurserymen have cold cellars in which their plants, vines and trees are kept retarded. The trees, etc. can be packed and shipped in these cool cellars much later than the purchaser supposes. When the purchaser looks out of the window and sees the trees in his garden leaving out, he is inclined to feel sure that it is too late to transplant trees that he has ordered from the nursery, but such is not the case. My advice therefore is to wet down the package carefully on receiving it and plant the trees, etc. with the greatest care, never failing to omit these two important features:

First, pack the dirt as firmly about the roots as you would about a fence post.

Second, cut back the branches or canes, leaving simply short stubs of branches 4 to 6 inches long. In the case of peach trees cut off all the branches, leaving simply a straight stick.

If these two rules should be carried out by planters, we would hear very little complaint about plants, trees and vines not living. When I see newly planted trees or vines I feel like catching hold of the main branch and pulling on it severely. If the tree or vine comes up easily, indicating that the earth has not been packed firmly about it, I am satisfied that the planting has not been correctly done, and that the earth should be immediately packed over the roots as firmly as it is

possible to pack it, and yet after the packing is done, a layer of loose soil to the depth of two inches should be spread over the surface of the ground around each tree, plant or vine.

The nursery business is the most exacting and trying of any business known to man. The overworked nurseryman, feeling keenly the responsibility which rests upon his shoulders, is straining every nerve and neglecting his own individual affairs, having no time to slick up his own yard or to plant therein what he would like to plant or to make his garden, and hardly time to take necessary hours of rest. Farmers know that farm laborers are getting scarce. It is the same with nursery laborers.—Old Nurseryman.

#### Buying Farms.

Mr. C. A. Green:—I received a copy of your Fruit Grower yesterday and read every article with pleasure. I think it the best paper I ever came across. I see there are 100 acres of land for sale 13 miles south from Rochester near your farm for \$110 per acre. What could I buy an option on it for and pay for it in 2 or 3 years?

I have 140 acres where I live, and bought 85 more in November for \$9,000. I keep 42 cows on the 140 acres and Angus beef cattle on the 85 acres adjoining. You may be surprised when I tell you that this 140 acre farm is worth \$300 per acre and that I don't care to sell it at that price. My cows have brought in \$107 each, per year, and I sell nearly \$1,000 worth of pork. I keep 172 colonies of bees and have sold in one season 9,600 pounds of honey; but not many apples.—Wm. Kittinger, Wisc.

Green's Fruit Grower:—I just looked through three volumes of Green's Fruit Grower and found some information very valuable to me, as I expect to take charge of a large commercial orchard in a week or two.—Mr. G. G. Means, West Virginia.

#### Skim Milk Cheese.

Mr. H. J. Batchelder asks where he can get skim milk cheese, and also asks for the recipe for making such cheese.

Reply: When I was a boy on the farm my mother used to make both cream cheese and skim milk cheese. I do not remember that her method was different in making the two different kinds of cheese.

#### Shall I Plant Cherry Trees?

Green's Fruit Grower:—I am an old man 75 years of age. I came to this country in 1870 from Sweden and settled on a homestead on the Dakota prairie, then a wilderness, with nothing to see but the nude prairie. I was educated in agriculture in Sweden and have always believed in intensive farming, but have had to adapt myself to circumstances in this country and do things in the cheapest and easiest way. I have planted five acres to orchards of various kinds of fruits and a large grove of maple, elm, cottonwood, black walnut, and about 400 Scotch and Austrian pine, with a row of cottonwood around my 160 acres. These are now big and tall and make a good protection to the crops at all times, but my neighbors do not like my having so many big trees as they complain they take moisture and plant food out of their land. They do not seem to appreciate the protection my trees give them. A good many farmers are cutting down all the big trees near their cultivated fields even along the roadside. In this part of South Dakota the land is gently rolling, the soil a light clay mixed with fine sand, many chalk pebbles, and humus. It is rich in plant food when properly tilled, retains moisture, and produces large crops of alfalfa, clover, wheat, oats, barley, all kinds of grasses and fruits. Strawberries grow in large quantities.

About three years ago I moved into town, bought two houses, thirteen vacant lots in the center of the town, and raised garden vegetables and strawberries. I would like to improve these lots by planting trees around them. I have already planted 95 Scotch pines. How would it do to plant some hardy cherry trees? They would be ornamental and at the same time produce fruit for man, animals and birds. Would you recommend this? We now have good roads on all the section lines and the agricultural class have automobiles. Farms with some improvements sell from \$100 to \$130 per acre. We have good crops here all the time.—Lars A. Anderson, South Dakota.

Reply: There are few fruit trees more ornamental than cherry trees. They cannot help attracting attention when they are in blossom, and everybody is watching the cherry trees when they are in fruit, therefore I think you cannot do better if you are to plant fruit trees than to plant cherry trees. But it would be more desirable for the occupants of the lot to have an assortment of fruit, some apple, quince and dwarf pear trees, if they thrive in your locality.

#### Training Raspberry Bushes.

Green's Fruit Grower Co.:—I have a small patch of red raspberries set out in the spring of 1912 and some are 6 feet long, should they be cut off to insure a full crop?

I have been subscriber to your valued journal for a number of years and know of no publication which suits the needs of every gardener and fruit grower as well as does Green's Fruit Grower.—S. J. Williams, Ky.

Reply:—It is not absolutely necessary to cut off the tops of red raspberries at any period of the life of the plantation, but where the canes are not tied to stakes or wires, it is necessary to cut off a portion of the top so that the cane will be self-supporting. If not so cut, when filled with

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**Costs but \$750**

On good roads—the equal of any two horses that ever ate their \$2 worth of feed a day; on sand and through mud—the equal of any four. Yet it works from morning till night on a pittance of gasoline and oil—say forty cents worth of the former and a nickel's worth of the latter.

Fasts when not busy; needs no veterinary; no blacksmith; doesn't get frightened at a blowing newspaper; litters up no stable; requires no hay loft and grain bin; saves barn space and hired help; and can be operated by any man or grown boy who knows enough to pour fuel into a funnel. Lastly—costs but \$750.

As Uncle Sam said to Mexico: "I ain't arguing; I'm just telling you." There is no argument—can be no argument in the matter at all. All we ask is that you see for yourself that—at \$750—we have really produced a motor truck answering perfectly and exactly to the needs of the farmer who wants to haul his produce to market quicker and cheaper.

Write us for full description of this powerful little truck. Tell us also something about the work you expect of it, and we can give you some interesting facts and figures, also the name and address of the nearest of our 1100 dealers who can show it to you.

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berries the branches will be inclined to fall over and rest on the earth where they get full of sand after showers.

Green's Fruit Grower:—We cannot do without the Fruit Grower, the best paper of the kind I have ever seen.—Wm. L. Snyder, Levels, West Virginia.

**Cuts a Limb as Big as This—2 in. Diameter**

**Pruned Trees Bear More Fruit**  
Tree trimming and pruning is now made easy. Double compound levers with a roller bearing give such a powerful drawing cut to the Orchard King pruning knife that you can easily snip a live tree branch two inches thick.  
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## Save the Birds Before It Is Too Late.

Farwell, farwell! But this I tell  
To thee, thou wedding guest!  
He prayeth well who loveth well  
Both man and bird and beast.  
He prayeth best who loveth best  
All things both great and small  
For the Dear God who loveth us  
He made and loveth all.

—Rime of the Ancient Mariner.

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Price complete, except the long handle (a

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Auto Lights, Fans, Engines, Dynamos, Belts, Books,

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## The Fruit Year of 1912 In Washington.

In a preliminary report by F. A. Huntley, State Commissioner of Horticulture for Washington, published in the Seattle Trade Register, statistics were given showing the extent of the fruit industry in that state. The report said that at the close of 1911 the records showed that there were 14,987,082 fruit trees in the orchards of the state. During the year 1912, this acreage was increased by 2,288,190 trees, thereby adding 36,971 acres and bringing the present orchard acreage of the state up to 266,857 acres. In addition to this there is the small fruit acreage, including strawberries, raspberries, blackberries, loganberries, dewberries, gooseberries and currants, which is placed at 8,200 acres; then there are vineyards in bearing, 300 acres; cranberries in bearing, 200 acres; making a grand total of 275,557 acres devoted to fruit culture in the state of Washington at the present time.

The acreage devoted to the different kinds of tree fruits is as follows: Apples, 217,840 acres; pears, 13,279 acres; peaches, 17,072 acres; plums and prunes, 10,927 acres; cherries, 6,104 acres; apricots, nectarines and quinces, with the apricot largely predominating, 1,635 acres.

A general summary of the fruit product of the state of Washington for the year 1912 is as follows: apples, 8,489,300 boxes; pears, 469,120 boxes; peaches, 2,514,580 boxes; plums and prunes, 542,050 crates; cherries, 543,070 boxes; apricots and quinces, 142,800 crates; berries, 1,640,000 crates; grapes, 108,900 baskets; cranberries, 1,300 barrels.

## The Thinning of Fruit.

The time is at hand when every grower should be thinning his fruit, says The Pacific Homestead. This is very important from the standpoint of immediate as well as future returns, and no orchard will produce yearly crops if allowed to overbear. Overproduction undermines the tree vitality, and, like any other thing or person, it must have time to recuperate. As a fruit tree is dormant for about six months directly after the crop is harvested, the only time for building up is the next fruiting season. The result is an off year. This is especially so with the trees that produce fruit on spurs. If the spurs are allowed to overbear, there is no plant food for the building up of fruit buds for the next season's fruit. Overproduction will mean a large percentage of small fruit, and small fruit means small prices. Again, overproduction makes it impossible to produce clean fruit. Apples hanging in clusters make it impossible for the sprayer to do a good job. The outside of the clusters are sprayed, leaving the inside free from poison. As the center of the cluster is protected, it will be the first place the insect will go to begin work. The result is a lot of wormy apples or pears. Properly-thinned fruit allows the remaining specimens to be sprayed on all sides.

Just when to begin thinning depends on the kind of fruit to be thinned, also the grower who is to have the work done. The best time to thin peaches is when the fruit is about the size of a small peach seed. As to apples, some would thin when the fruit is about the size of a filbert or hazel nut. Others would wait until after what is known as the June drop. Those who thin when the fruit is small, claim that it comes off easily; that there is less danger from breaking off the spur, and the remaining fruit will get the benefit of the plant food that would have been used up if the discarded specimens were allowed to remain on the tree. Those who wait until after the "drop" do not have as much thinning to do as if it was done at an early date. Apples should be thinned at least twice. The second thinning takes place after the fruit is two-thirds grown. At the first thinning remove all fruits except one to the spur. The space between the fruits on the branches should be four inches. The second thinning takes place, as I said before, when the fruit is two-thirds grown or begins to crowd.

There are several methods for removing the small fruits. Some prefer to break it off with the fingers; others use a small

pair of snippers such as those used by orange pickers. If you break the apple off, be careful not to break the stem off the fruit spur. The larger apple is usually in the center, and by pulling all the stems off the spur, the stem of the center apple is completely girdled and will often drop off of its own accord. There is some objection to clipping the fruit off, especially where the work is done when the fruit is large, as the remainder of the stem dries up and forms a hard sharp point, and when picking the skin of the fruit will be punctured.

Of all the different times suggested for thinning, I prefer that just after the June drop. Less work is required and the fruit is large enough to handle easily.

I mentioned before that the time to thin the peach was when the fruit was as large as a peach pit. I find that the best way to do the thinning is to work one twig at a time. Thin so that the fruit stands four inches apart on the twig. That is the minimum distance. Varieties that produce large fruit should be given more room. At maturity the fruits should not be crowding. It is impossible to grow a well-colored, perfectly-shaped specimen on a crowded branch. Thin the second time, if necessary. Peaches are classed according to size; that is, all fruits smaller than 66 to the box go as No. 2 or 3.

In thinning break the peaches off with the fingers. It is not advisable to shake the tree in order to dislodge specimens that are on the point of dropping. In doing this you are apt to loosen others that you wish to retain.

## The Succulent Asparagus.

An aristocrat among vegetables, the asparagus claims ancient lineage and age-long favoritism, says the American Food Journal. This delicately flavored and succulent vegetable has an authentic history of many centuries and Cato 150 years before Christ gave a full description of its mode of culture by the Romans, but it was probably well known before that among the Greeks. The young asparagus shoots have been in high repute throughout all these generations as a culinary vegetable being esteemed especially on account of fine flavor and diuretic values.

Asparagus contains a very high per cent. of water, but the solid substance of the product is very rich in nitrogenous substances.

While there is a very short time in the spring when some people are fortunate enough to be able to cut asparagus from their own gardens, it is also true that the opportunity is confined to very limited numbers. Most of us must purchase the vegetable either from the market or in cans. Of the two methods the latter is really to be greatly preferred. The reason for the superiority of canned asparagus over so-called fresh asparagus is easily given. Asparagus is one of those vegetables which deteriorate in flavor very rapidly once it is cut. The proportion of volatile flavor is very large. Almost all of the large asparagus canneries are located in close proximity to the fields wherein the vegetable grows, and it is the practically invariable rule for the canning factory to pack the product into the cans as quickly as possible after cutting in the field. A well-operated cannery packs each day's cutting on the same day it is made. Thus the vegetable retains the maximum of flavor, and this flavor cannot escape once it is sealed in the can.

### Can Half the Trees in the Old Apple Orchard be Cut Out and Yet Pay More Profit Than Before?

Let us consider the matter. The average old apple orchard planted 30 x 30 feet and now interlacing until sunlight and air are shut out both from fruit and soil, cannot produce fruit of any value, says Joseph Tweddle in Canadian Fruit Grower and Farmer. There are hundreds of orchards throughout our country in this condition which at very little cost can be made to pay fine dividends. Trees require a certain amount of room to do their best work and when this is lacking, the crop must suffer, both in quantity and quality. The writer has seen apple sprouts growing from the roots of apple trees 40 feet away from the trunk of the tree and he knows of an orchard west of Stoney Creek, on the stone road, which produces more money from the outside row around, than all the rest of the orchard. The outside every year showing dark green healthy foliage and the balance with the light green thin looking foliage, showing clearly that the trees cannot get the food they need from either air and light, or soil. This orchard stands 30 x 30 feet and for lack of light, no cover crops will grow to keep the soil in proper condition by furnishing cheap nitrogen from the atmosphere. Now if one half of these trees were removed by taking out every alternate row diagonally, the remaining trees would stand 41½ feet apart, which is none too far for trees which were

interlacing at 30 feet and we would at 41½ feet have good room to drive and operate a sprayer. The roots of the trees would occupy the land. The sun would get to the soil and sweeten it up. Leguminous cover crops could be grown with the good supply of sunlight. Each tree would have double the rainfall to draw from and all the land would have the best of conditions under which to supply the trees with food to grow a high class of apples, which would give double the profit per barrel, with only one half as much work on the trees by way of pruning, spraying, picking and etc., as well as less cost for sprayers and spray material.

After half the trees are taken out, remainder should be headed down to 12 to 14 feet if the lower branches are not too far from the ground in which case some top should be taken off and the balance thinned out enough to let in a reasonable amount of light. This will give the tree surplus sap to throw out wood lower down and from this the lower part of the top may be renewed and then more of the old top may be cut off, thus gradually lowering the tree to the minimum height allowable. The heaviest pruning should be done the year the tree is supposed to bear, as the tree will have plenty to do in bearing a full crop and no surplus sap will be wasted and no harm to the tree will result.

A few years ago, a Mr. Udell near Lockport, N. Y., had an orchard of Baldwins, 45 acres in extent, which had become interlaced and could get nothing from it. He cut out every alternate row diagonally, leaving his trees 41½ feet apart, grew cover crops and the second year after sold the crop on the trees for \$14,500. This shows what can be accomplished by taking one-half of the trees where the orchard had previously yielded no profits, due to crowding.

Editor Green's Fruit Grower:—Vincent T. Bly, president of the Catoctin Orchard Co., says in your last issue: "At the present rate of increase, we shall soon be producing as many apples as New York and New England combined." I won't contradict the writer, but I am just going to say that our friends in "Ole Virginia" will have to hustle and hump themselves some in order to do it. For at the present rate of increase, I can pick out ten counties in this state alone, that in a few years will be producing an annual crop of seventeen billion barrels! That estimate is more conservative than brother Bly's. There has been an apple boom afoot for fifteen years or more, instigated and fostered apparently by transportation, real estate, nursery and commission interests. Whole farms are given up to the apple tree, so that there isn't grazing land left for the family cow. Doctors, lawyers, clergymen, bankers, merchants, railroad men and individuals from every kind of business and phase of life are taking up apple culture as a short road to prosperity. I want to see apples plentiful and cheap—so cheap that the poor of the cities can buy good apples in bulk for \$1 per barrel. But I don't want to see the industry so overdone that the thousands which have been invested in the business will be a loss to those who have embarked in it.—Harvey Losee, N. Y.

## The Growing of Roses.

Green's Fruit Grower:—I read your article in the January number on starting cuttings from roses, also the article in April number. I will give my plan. I have followed it for several years here in Northeast Arkansas with good success. Last September I took forty cuttings from monthly roses, these were of well ripened wood of that years growth. They were cut six inches long. I pushed these down into the ground about two thirds of their length. Putting four in a circle, of two inches. I then took a half gallon glass fruit jar and turned over them, pushing the neck down a half inch in the ground, this was out in the yard. I let them stay there all winter. Ten days ago I lifted them with a spade, using care not to break the little white roots and set them in a bed where I wanted them to grow. Today thirty-seven of them are growing nicely. I put these four under one jar, because I did not have enough jars to put one in a place. It would be better to put one in a place where you want them to grow and then not have to move them. Sisters in the South try this.—Mrs. Maggie Matthews, Ark.

Editor's Note: The above writer recommends her method only to those who live in the South, which is a point well made, for there are many kinds of shrubs and even trees which can be propagated from cuttings in the South, which would be an entire failure in taking root in the middle or Northern states.

It is right that we should think well of ourselves, but not too well, because we may be disappointed in our efforts to live up to what we thought we were.

## A Man With a Master's Plant Setter

will set, water and fertilize 10,000 plants per day. No blanks—no stooping—no more lame backs.

Don't wait for showers, but keep the planter going every day, and by using water or liquid fertilizer you will produce the best stand of plants seen for many a day. For cabbage, tomatoes, tobacco, celery, etc. Weight packed 7 lbs. Price \$3.75 F. O. B. at Rochester, N. Y.

GREEN'S NURSERY CO., Service Dept., Rochester, N. Y.







### WASTE BY FARMERS.

#### Speaker Says It Exceeds by Five Times U. S. Revenue.

Chicago railroad and collegemen were the principal speakers in the second day's session of the first national conference on marketing and farm credits, which is being held in Chicago.

B. F. Yoakum, of New York city, chairman of the board of directors of the Frisco lines, said he believed in the readjustment of the tariff, but declared that if congress should wipe out the entire tariff on every article that is brought into this country, on last year's collections, it would only amount to \$326,000,000, while the waste which falls upon the farmers of the nation largely by lack of co-operation means an annual loss of over five times the entire amount collected by our revenue collectors.

#### Losses in Barnyard Manure.

In handling barnyard manure, the farmers can save or lose hundreds of dollars annually. A manure heap is a hot bed of bacterial activities. Some of the nitrogen is formed into ammonia and passes into the air; this is a clear loss. Some is transformed into nitrates, which are soluble. These are washed out by rains and sink into the soil, or run off into the ditch; this also is a direct loss. Some is formed by bacteria into nitrates and these nitrates attacked by another species of bacteria which change into nitrogen gas, which passes into the air and is lost.

Nitrogen is worth at least eight cents a pound. A horse will produce fifteen tons of manure and litter a year, containing one hundred and thirty pounds of nitrogen. At eight cents a pound, the value of that manure is \$10.40. It pays to save it. Experiments have shown that liquid and solid manures when kept together deteriorate much more rapidly. Also the more compact the manure is stored away from the weather, the least loss will result. Here is a hint for progressive farmers. Our farmers need this nitrogen and when it represents at least \$10 a horse, one can afford to take a little better care of manure.—Canadian Fruit Grower and Farmer.

For about forty years I have used fertilizers, and now in the city of London with only a half acre lot, I use every year four loads of stable manure, and four hundred pounds of fertilizers, and I claim, by the use of the latter, I am enabled to produce very early vegetables. I also use it among my flowers.

Executive Mansion,  
Washington, D. C., Nov. 21, 1864.  
To Mrs. Bixby, Boston, Mass.

Dear Madam:—  
"I have been shown in the files of the War Department a statement of the Adjutant General of Massachusetts that you are the mother of five sons who have died gloriously on the field of battle. I feel how weak and fruitless must be any word of mine which should attempt to beguile you from the grief of a loss so overwhelming. But I cannot refrain from tendering you the consolation that may be found in the thanks of the republic they died to save. I pray that our Heavenly Father may assuage the anguish of your bereavement, and leave you only the cherished memory of the loved and lost, and the solemn pride that must be yours to have laid so costly a sacrifice upon the altar of freedom.

Yours very sincerely and respectfully,  
A. LINCOLN."

#### Sheep Husbandry in Wisconsin.

By Frank Kleinheinz, Madison, Wis.  
When Mr. McKerrow called upon me to come up here and talk about sheep, I thought I would be the only pebble on the beach to talk sheep, but to my great astonishment, when I got in here and listened to these horticultural men, they opened my eyes, especially when I heard the statement of Mr. Cranehead that there was more money in fruit growing than any other agricultural line, and then, to my fresh astonishment, he went on to talk about a good many things I was going to say. He talked about localities, about the land, that certain localities could not be recommended for fruit growing—just the same thing I was going to say about sheep. The next thing he brought in the dairy

cow and the straw stack, the same old joke I was going to tell. I see these fruit growers have disappeared, I do not see either of them any more. One thing which neither one of them told you is that down at the Experiment Station, when they want to grow the very best apples, they come and ask for sheep manure, because they know from the analysis of that manure that it is far better, far richer than any other.

I have a little piece of paper here, and I call it "More and Better Sheep for Wisconsin."

The question is often asked and discussed whether there is any profit in sheep raising. Some men who keep different classes of live stock on their farms claim that their easiest earned money comes from their flock of sheep. Only a comparatively small number of them say that they have not made much money by keeping sheep. We may assume that those who say that they have the greatest and most easily earned profit from their sheep, are shepherds who give their sheep proper care. The others, we may take for granted are perhaps a shiftless class of men, who have the idea that sheep should only be kept on a farm as scavengers. The real truth of the matter is that a handsome profit can be derived from sheep when properly managed, and in cases where such profit is not realized the owner himself is to be blamed for it. A man who only keeps an inferior class of sheep, which do not possess the proper mutton type and conformation, cannot expect to get the best price for them and is merely wasting his feed on such stock. Good stock will require no more, but even less feed than the inferior kind. Moreover, men who have the idea that sheep can live on little or almost no feed, are badly mistaken.



MARY'S LITTLE LAMB.  
—Borrowed in the Newark News.

#### Do Your Best Then You Will Have Your Own Approval.

It is not what people say about you—it's what you are that counts. The one person in all this world whom you should aim to satisfy is yourself. You alone know yourself. Other people know your outward appearance, your actions, your deeds. You, and you alone, know your motives, your ambitions, your thoughts. Are you satisfied with yourself? It is your own fault if you are not. Are you satisfied that you are doing the best you can in your work, that you are making the most of your time? Are you confident that your conduct toward your family, your friends, your neighbors, your employer, cannot be improved?

Look yourself straight in the face this morning in your mind's looking glass. Ask yourself whether it is what people say about you or what you are that hurts. Analyze your own conduct in all matters. Put yourself in the other fellow's place and try to see your actions through his eyes. Imagine that you are your employer instead of yourself. Answer honestly whether if he knew as much about you as you know about yourself he would discharge you or would raise your wages. If you do this conscientiously there are many things you will do differently.

Remember this, too—other people's opinion of you is based on your own opinion of yourself. Are you self respecting? Other people will respect you. Are you truthful? The world will believe you. Are you honest? Every one will trust you.

But weigh yourself frequently. Weigh yourself carefully. Be certain that your own opinion of yourself is justified. Be satisfied with yourself.—William Johnston in American Magazine.

#### The Dead Sea.

By C. A. Green.

There is in Palestine a body of water, known as the Dead Sea. There is not a living thing in that body of water, no fish or reptile makes its home there. No duck or other water fowl floats upon its surface. Men who have navigated its water have perished. It is rightly named the Dead Sea.

The pure waters of Mt. Hebron and other elevations flow into the Dead Sea to become defiled and pestilential.

What is the cause? It is this. There is no outlet to the Dead Sea. It holds firmly in its grasp everything which it possibly can hold of all that it receives. If there were an outlet, if the Dead Sea were giving out its waters to fertilize the land, or in other ways to be a blessing to the world, its water would not be so bitter and repulsive.

There are men who may be likened to the Dead Sea. Selfishly, these men gather to themselves all the good things possible leaving no outlet through which their gains of a life-time may beautify the world or increase the happiness of mankind. There are men possessed of great wealth, but they hold it firmly in their grasp. There are others who have talent which might have been used to make mankind happier and more contented, but which has brought no harvest. Others have owned beautiful gardens, parks or art galleries which they have selfishly enjoyed alone, barring out the public. These men may be likened to the Dead Sea. They would have been far happier, they would have enjoyed life far more, if they had provided an outlet for the good which they possessed for the benefit of the human race.

There is near Rochester, N. Y., a beautiful lake. It is fed on all sides by springs and brooks and by the showers from heaven. This lake sends forth its pure waters every day, every hour, every minute to provide for the wants of 200,000 people in the city of Rochester. A spray of the waters from this lake is sent into the air fifty feet in a fountain, to fall back again into a reservoir from which it is conveyed into every house of the big city. By means of this outlet the waters of the lake are kept from stagnation. There are many men, who may be likened to this lake nestling in the uplands of the Empire State. While these men may be gathering the good things of earth, they are continually dispensing with the same for the good of others.

Remember that your best friend is your mother, and have nothing to do with those who think otherwise.

#### Liming The Soil.

The amount of lime present in the soil varies greatly according to the soil; but no soil can be regarded as fertile unless it contains one-half per cent. of lime, says Smallholder. This may sound, very little, but since in good agricultural loam the upper nine inches contain about 3,000,000 pounds of soil to one acre, one-half per cent. of lime represents 15,000 pounds or 6½ tons. Five per cent. or even ten per cent. of lime, which is found in some soils therefore means a tremendous store of this most important soil constituent, and the usual three or four tons of lime applied at long intervals to the soil represent only a very small fraction of one per cent. It is not necessary to describe here the exact process which is going on in the soil when lime has been added, and we will only deal with the facts. These are, first that the lime improves and sweetens the soil, that it enables other manures to act better, and that it keeps down certain pests which flourish in sourish or lime-free soil. On the latter point it is a significant fact that the "finger-and-toe" disease seems of late years to have spread all over the country, causing severe loss to turnip growers, and this spread of the disease coincides with liming having gradually fallen into abeyance.

Mulching breaks the force of rains, and prevents compacting the soil.

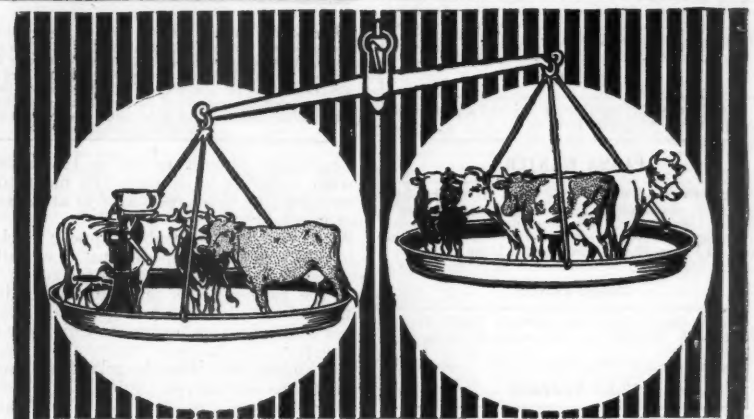
To secure the very best fruit it is best to renew the strawberry bed every other year.

15<sup>95</sup>

AND UPWARD

AMERICAN SEPARATOR

THIS OFFER IS NO CATCH. It is a solid proposition to send, on trial, fully guaranteed, a new, well made, easy running separator for \$15.95. Skims hot or cold milk; making heavy or light cream. Designed especially for small dairies, hotels and private families. Different from this picture, which illustrates our large capacity machines. The bowl is a sanitary marvel, easily cleaned. Gears thoroughly protected. Western orders filled from Western points. Whether your dairy is large or small, write us and obtain our handsome free catalog. Address: AMERICAN SEPARATOR CO. BAINBRIDGE, N.Y. Box 1121.



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Thousands upon thousands of cow owners have already proved this statement; any experienced dairyman will verify it for you.

With such a big saving it is hard to understand why any cow owner should try to get along without a De Laval Cream Separator.

If you are selling cream or making butter, and have no separator, or else an inferior machine, we know if we could put a De Laval on your place we would be doing you a personal favor.

If you haven't a separator don't make the mistake of starting with a "cheap" or inferior machine. When you do buy a separator—as soon or later you surely will—be sure to get the best—the De Laval.

Remember, you can't make money by trying to save money in the purchase price of a cream separator. A De Laval costs only a little more than the cheapest and will save you twice as much and last five to ten times as long as other separators.

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Terms: CASH WITH ORDER.

Green's Fruit Grower Co., Rochester, N. Y.

#### HELP WANTED

\$5 DAY GATHERING FERNS, flowers, roots and herbs. Botanical Bureau, 2, New Haven, Ct.

WANTED—A competent orchardist to look after land planted to young trees. Also can use a man in packing house and farm work, who has executive ability and who has had experience in nursery work. Must have first class credentials. Address, J. G. Harrison & Sons, Nurserymen, Berlin, Md.

MEN AND WOMEN Wanted for Government Positions. \$60 to \$100 month to commence. Vacations. Steady work. Over 12,000 appointments this year. Parcel Post requires several thousand. Influence unnecessary. Write immediately for free list of positions. Franklin Institute, Dept. O-154, Rochester, N. Y.

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FREE ILLUSTRATED BOOK tells of about 300,000 protected positions in U. S. service. Thousands of vacancies every year. There is a big chance here for you, sure and generous pay, lifetime employment. Just ask for booklet S-1146. No obligation. Earl Hopkins, Washington, D. C.

LOCAL REPRESENTATIVE WANTED. Splendid income assured right man to act as our representative after learning our business thoroughly by mail. Former experience unnecessary. All we require is honesty, ability, ambition and willingness to learn a lucrative business. No soliciting or traveling. All or spare time only. This is an exceptional opportunity for a man in your section to get into a big paying business without capital and become independent for life. Write at once for full particulars. National Co-Operative Realty Company, L-638, Marden Building, Washington, D. C.

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DUROCS NICE SPRING PIGS \$15 a pair, pedigree. S. O. Wicks, DeGraff, O.

#### FARMS WANTED

FARMS WANTED. We have direct buyers. Don't pay commissions. Write describing property, naming lowest price. We help buyers locate desirable property free. American Investment Association, 32 Palace Bldg., Minneapolis, Minn.

#### FARM LANDS

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#### COLD STORAGE

COLD STORAGE is the best way of keeping fruit—everybody knows that. Investigate the Cooper Brine System, using ice and salt for cooling. Superior results over common storage and also over refrigerating machine; reasonable first cost; absolute safety against breakdown. Madison Cooper Co., 110 Court St., Calcium, N. Y.

#### POULTRY

HATCHED—95,000 CHICKS in 1912 of 17 varieties. Chicks and eggs for sale. Tenth season. Catalogue free. Old Honest Hatchery, Dept. G, New Washington, O.

#### MISCELLANEOUS

HENRY'S ELECTRIC GERMAN LINIMENT. We began manufacturing and selling this liniment among our home people in Lancaster County, Pa., and today we have hundreds of satisfied customers—a sure guarantee of its reliability. It has been used successfully on over 200 cases of Pneumonia, and has relieved and cured hundreds of cases of Rheumatism. Relieves Croup almost instantly and invaluable for colds or any internal inflammation. Price \$1.00, \$1.50 and \$2.00 per bottle postpaid. Henry & Ream, 1103 Frances Ave., Lancaster, Pa.

Why ventilate? Why bring fresh air into a house or barn? One cannot stop breathing for even five minutes—we are so dependent on the oxygen that the lungs can take out of the air. If no fresh air is allowed to enter a room occupied by several people the air soon becomes foul from the air coming from the lungs. Breathing air over and over, lowers one's vitality, which results in taking colds easily and along with the cold other troubles often start. Pure air is fully as important as pure food.

#### Some Garden Hints.

Written for Green's Fruit Grower by Charles A. Duncan.

Gather the cucumbers daily. Cut with a sharp knife close to the vine.

With some radishes are merely an early vegetable. Have them all summer by planting at different times.

Anything on the farm can hardly afford more real satisfaction than raising plenty of first-class vegetables for home use.

No garden should be without its row of mustard. It is excellent for greens, salads and garnishing.

Three good stalks of corn are enough to a hill. Crowding will mean less corn and a poor quality.

The garden will be greatly benefited by cultivation when partly dried after a heavy rain. The soil should not be allowed to harden.

Do not gather fruit or vegetables till fully matured, when intended for home use, as many seem inclined to do. It is a great waste.

The hoe cannot be overworked. The more it is kept going in the garden the better the results.

Give some of the surplus vegetables to any poor or aged people you may know. They will appreciate the simple gift.

A small box to sit upon is a great back saver in the garden. Try one when picking the currants.

Plant rows far enough apart to get through with a horse and cultivator. This makes frequent cultivation an easy matter.

It does not look just right to see flowers planted in the vegetable garden. Have a garden for each.

not intentionally so. I have had experience with sweet clover, and that experience has made me friendly to it. It is the most valuable legume that can be grown in the state of Ohio. It will grow anywhere, in any kind of soil and most all climatic conditions. It will never freeze out like other clovers. It will never die out if left to reseed itself. Stock will eat it readily when they have once become used to it. I incidentally became acquainted with its value and worth. I purchased a rocky farm on which was planted a large peach orchard. The orchard had been badly neglected and blue grass and sweet clover appeared everywhere. Occasionally I would drive from town and work among the trees. I would tie my horse to a tree and leave him take his choice of the grasses. At first he would not touch the sweet clover, but finally he would eat it quite readily. One day I tied him to the fence and unreined him. For a while he ate of the blue grass. Within his reach was a small bunch of sweet clover hay that had not been raked up with the other hay. It was quite large, dry and woody. He reached as far as he could to get the sweet clover hay and ate all of it but the woody part of the butt end. Scattered amongst the timothy there was quite a lot of sweet clover. I considered it a rank weed and wished it were not there. From necessity I had it all harvested together. I was agreeably surprised to find that the horse and cow would eat the clover quite readily, all except the butt end. Had the sweet clover been cut when it should have been. It would have made the best kind of hay. Although I at first considered it a rank weed, a dangerous pest,

#### Shall A City Man Buy A Farm?

Mr. Chas. A. Green:—The advice you give to the readers of the Fruit Grower on various questions are based on such apparent good judgment and with such evident sincerity that I am persuaded to lay my own case before you.

I was born and raised on an Ohio farm but left when about of age to engage in clerical work and with the exception of a few years my tools as a wage earner have been mainly the pen and pencil. I have now reached the age of 54 and the desire to get away from indoor work is getting more persistent each year. I never have lost my interest in the farm and for years have been a subscriber of one or more agricultural papers. In fact there is a lure of the soil each spring that is hard to resist. I work off some of it in spading up small vegetable and flower beds and planting as much as my small space will permit.

Could I make a comfortable living on a farm, bearing in mind the fact that it has been over thirty years since I have done a full day's work on a farm and that in all probability, to a considerable extent I would be obliged to depend upon hired help.

I could invest say \$5,000 but would it be wise to put it all into a farm, or would renting be better? I am handy with all kinds of tools but the question is how many hours a day could I use them? Is there more profit in small farming based on the investment than in general farming? (By small farming I have in mind berries, fruit on a small scale, poultry, etc.) Having lived for years in the city would you recommend getting very far away from it? Would you recommend employment in the city and attempt to operate a farm, living on it of course and going back and forth each day assuming its proximity to the city allowed such an arrangement.

Give your readers your ideas of men and women having reached middle age going on a farm expecting to make a living that would not place upon them burdens of work more than was good for them physically.—"B"

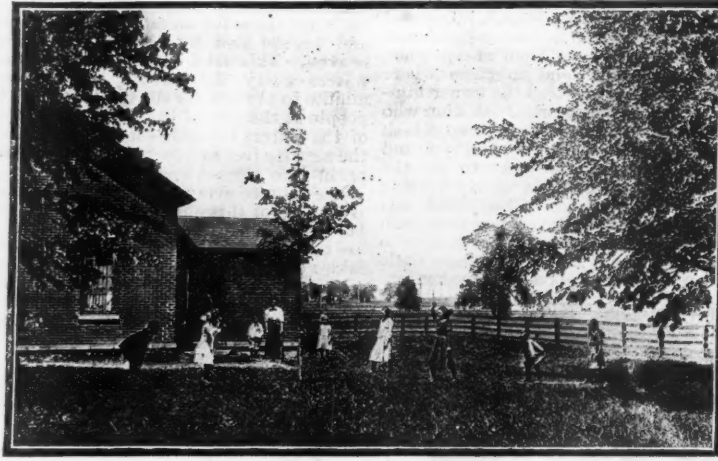
Reply: No one on earth can give you advice that will be of great assistance in the movement you are contemplating. All I can do is to suggest. Many men of experience are fearful that there are large numbers of city people like yourself who have been induced to go to farming who will not be successful. This is not unusual since a large portion of all the business ventures of the world, and there are many kinds of business, prove disastrous. There are few who are notably successful as fruit growers, merchants, inventors, manufacturers, publishers, nurserymen, or in any other line of human endeavor. The majority fail of marked success and possibly many lose all they have in efforts to better themselves.

The safest advice, although it may not be the best advice, is for people to stay where they are and continue in the work with which they are familiar, in which they have served an apprenticeship. In nine cases out of ten they have better chances of success where they are than they would have if they changed their occupation, taking up something in which they have no practical experience. I have repeatedly said to my readers do not expect large profits from the soil. No matter what you devote the soil to, expect only moderate or small profits, but if you have had no experience on the farm you will be something like a man who would undertake building ships or railroads without having had any experience. There are some men who can succeed at anything, with or without experience. If you are such a man as this you can make a success of any work you undertake on the farm.

#### Grapes \$3 Per Ton.

The wine grape growers of the San Joaquin valley of California are in open revolt against the prices now being offered for their grapes by the Wine Associations, which is \$5 a ton for Zinfandels and \$3 a ton for cull Tokays. Figuring the average yield of Zinfandels at five tons to the acre, the \$5 price will about pay for the cultivation of a vineyard. At \$3 a ton for culls the grower can realize \$1 a ton and this is such a small price that the grapes had better be fed to the pigs. Some of the growers, fortunately, had contracts with the wineries covering several years at prices ranging from \$7 to \$10 a ton and these will make a little profit from their vineyards, but at \$5 they suffer a decided loss. Many of the grape growers did not pick their grapes this year, but others who were mortgaged or otherwise in debt had to sell at whatever prices they could get and bear the loss. We are printing this little bit of information just to show that our Colorado growers are not the only fellows in the nine-hole this year and the trouble lies far beyond their orchards.—Field and Farm.

"A man rarely thinks seriously on the subject of religion until the day the doctor is sent for in a hurry."



The Model School House. While I will not claim that the above photograph represents my ideal of a schoolhouse and school yard, I will say that it comes pretty near my ideal. The building is of brick and presents a substantial appearance. There are trees, without which no schoolhouse grounds can be complete. In the distant corner of the schoolhouse grounds there should have been a clump of flowering shrubs, extending all along the fence and concealing the fence. What a fine time these school children are having with their game of ball, reminding us older people of our early experience. Notice that a girl is pitching the ball, and yet it is claimed that girls cannot do such things.

Vegetables should never be taken to market covered with dirt. It pays to rinse them, as clean food always attracts customers.

When the first vegetables appear mark some of the best specimens. Let all understand they are reserved for seed.

If the garden needs rain, do not let it suffer. It will be time well spent to carry a few pails of water for plants which need it most.

The man who lives largely from his garden has no fear of adulterated products. He gets the very best and can proudly invite a king to his table.

Too many gardens are without the reliable rhubarb. This plant is easily cultivated and can be served in so many tempting ways that every family should be well supplied.

A small garden well managed will be more satisfactory than a larger one improperly cared for. Never plant more than you intend to give the very best care.

In many places a fence of poultry netting around the garden is almost a necessity, to prevent cats and dogs from doing damage. They can do a deal of mischief to freshly planted beds.

Young turnip, cabbage and beet plants make the best of greens. It is but a small job to plant these at different times, and they can be had all summer.

Do everything on time, or if possible a little before time, and the garden work will be much easier. By all means do not let the weeds get the upper hand. Keep them out.

Other farm work should not rob the garden of its full share of time. On the welfare of the garden depends many good meals and dollars saved from the cost of living.

#### Sweet Clover Valuable.

Editor Green's Fruit Grower:—I have just finished reading, in the May number of the Fruit Grower, the article of Kendall Perry of Iowa, on "Sweet Clover—A Query." The article is misleading, but

I now consider it the greatest legume ever grown for feed and fertilizer. Many farmers are beginning to sow it like other clover.—R. C. Tracht, Ohio.

#### Canker Worms.

Mr. C. A. Green:—We have a large orchard here and last year the canker worms got into it and completely stripped the foliage from several acres and did considerable damage all through it, ruining the prospects for a crop last year and also this; and although we sprayed them good and hard it didn't seem to have much effect. Now we are expecting them again this year in about ten days or two weeks. How many pounds of arsenate of lead can we use in a 200-gallon tank without danger of burning the foliage? Would 20 pounds do any harm?—H. W. Phelps, Vermont.

Reply: Canker worms can easily be distinguished and destroyed if fought immediately or before they have seriously eaten the foliage. After the foliage is largely eaten they cannot be destroyed. Use one to three pounds of arsenate of lead to fifty gallons of water, and apply as a spray. Repeat in three or four days if necessary.

At Green's Fruit Farm years ago, an old orchard was attacked with canker worm. I made as great haste to spray these trees as I would to extinguish a fire if it had occurred in my buildings. The worms were discovered hanging by a web thread from the branches of the trees. This is the only worm that hangs in this way and this is the means of identifying the canker worm. We applied a mild solution of Paris green and sprayed the trees with care and have never had a particle of trouble since in that orchard. They came to our trees from an abandoned orchard of a neighbor nearby. The stripping of the foliage by these worms in one season is not apt to be fatal to the trees, but if the worms are allowed to continually strip the foliage year after year the orchard will die.



### How to Start the Young Vineyard.

Written for Green's Fruit Grower by  
M. Roberts Conover.

The grape does not succeed best on low, wet land. The slopes, knolls and fields of light well-drained soil are favorable to its growth and ripening.

Poultry manure, guano, bone dust and ground fish are valuable fertilizers for the grape. They may be applied to the young vineyard the first year of its growth benefiting it the second year as well. Thereafter an annual broadcasting of any one of these fertilizers will keep the vineyard in fine condition. They may be harrowed or plowed in.

When setting the young vineyard use either one or two-year old plants. Older plants are not an advantage when they have to be moved.

The time of planting depends upon the locality. In some regions fall planting is practicable, but where the winters are trying it is better to leave the young plants where they are protected, setting them out in the spring. The distance for setting the plants varies according to soil conditions and the variety. Twelve feet apart in the rows seems to be satisfactory for vigorous vines in a favorable location. It is preferable to run the rows of trellised vines north and south in order to give even distribution of light to the vines and fruit.

It is not necessary to prune the vines the first year. By letting them grow unhindered, a fine root growth is established. Do not let them fruit, however. At the end of the first year, the young vines should be cut back to two buds.

Cultivation should be given regularly the first half of each growing season to stimulate the vines to do their best, but it should not continue later than July 20th, or there will be a lot of new wood growth which will not ripen properly before cold weather. A quantity of unripened wood is a tax upon the strength of the vine if cold weather comes on while it is in this condition.

#### Study of Soils.

"No industry is so vital to the well-being of a nation as agriculture, and nothing is so vital to agriculture as the soil. From its treasury it has been estimated that we drew during the year 1909 more than \$8,296,000,000, and its possibilities are as yet only partially realized, says United States Department of Agriculture. There are still in this country millions of acres which have never felt the plow, while those which are now under cultivation can, by the application of scientific principles, be made to produce many times the present value of their products. How to use and not abuse this great resource is the most important problem which faces the farmer of today—one worthy of the best efforts of our most profound and learned scientists; for upon its solution depends the future prosperity of the nation."

The above is a statement from Bulletin 85 of the Bureau of Soils relative to the soils of the country. While a comparatively small percentage of the soils of the United States have been surveyed and analyzed by the Department, more than 800 types of soils have been discovered

### Relation of Proper Pruning of Orchard Trees to Thorough Spraying.

The necessity for thoroughness in spraying is recognized by every one who has had any experience in fighting our worst insect pests. Writers on spraying have urged that thoroughness is one of the most important factors entering into the spraying operation says Colorado Agricultural Bulletin. While such urging is entirely justifiable, I sometimes feel that too little has been said about preparation for thoroughness. This is certainly true in the case of many of our orchards where more time spent in heavy and intelligent pruning and less in spraying would result in much more effective work than is sometimes done. Orchards have been observed time and again which had not seen a pruning saw for years; where the growth of the branches was such as to exclude the sun almost entirely from the center of the trees; where the fruit was small and poorly colored; where codling-moth found conditions entirely favorable for its survival, and yet when the owner was asked why his fruit was wormy he would reply that the arsenate of lead that he sprayed with was not good. Such orchards defy proper spraying, or at least require so much spray to do the work well that the average orchardist would rather grub up the trees than spend the necessary money

to spray them. While this statement may be slightly overdrawn it is not far from the truth, as any investigator who has studied spraying problems will have to admit.

The horticulturist urges regular and systematic pruning of the orchard just as emphatically as the entomologist urges thorough spraying. Heavy pruning of old trees does not usually become necessary when each season after planting, moderate, careful, pruning is done. It does become necessary in extreme cases where earlier pruning has been neglected, and the time has come when a serious pest infects the orchard, else the spraying in all probability will be insufficient to control this pest.

"The first Farmer was the first Man, and all nobility rests on the possession and USE of land."—Emerson.

Bulletin No. 350 of the Station at Geneva discusses an entirely new line of work,—apple breeding. It gives descriptions of fourteen new varieties from crosses of known parents, with a discussion of the apparent inheritance of characters, thus making it of interest to both apple growers and students of breeding. It may be secured, in either regular or popular edition, by addressing the Station.



Vineyard at Brockton, N. Y.

This allows two canes or branches for the second season's growth. From these canes will grow several lateral branches. The chief aim this second year is not to allow any laterals to exceed the canes in vigor of growth. By cutting back any large lateral branches during the season, the main arms will grow sufficiently stout. Each cane may be allowed one bunch of fruit—other flower buds being pinched off. At the end of the second year, the canes, branches or arms may be cut back to three buds. Each undisturbed bud will produce a cane which will fruit the third season, but each vine should be allowed no more than a dozen bunches.

From now on the pruning methods of growers differ. The canes cannot all be cut down to spurs each year and give sufficient expanse of vine for heavy bearing later. Some of the wood must be carried higher and farther from the main stem in order to produce the requisite number of bearing canes. Some growers leave such wood indefinitely, and after a time the vineyard becomes overburdened with wood, which when cut out must deprive the grower of a full crop for two or three years. If one starts right with a young vineyard, he can avoid any overburdening or subsequent slaughter. Suppose, for instance, the three-year old vineyard which has been pruned as previously described. At the end of the season the vines consist of the six canes with their lateral branches. Some of these have fruited. Now by selecting three of these and cutting them back to two buds and shortening the other three to say about two feet, a good beginning is made for systematic annual pruning away of older wood. The three canes cut back to two feet with their lateral branches are removed at the end of the next season, cutting so as to leave eight buds for new canes, and the growth from the six buds upon the spurs of the three canes bear the fruit of the subsequent year, each lateral branch being pruned to a spur of two buds when the other wood is cut out.

during the progress of the soil survey. The existence of such a large variety of soil types, each possessed of definite and peculiar characteristics calls attention to the importance of a careful study of the soils and their relation to agriculture. The Bulletin says:

"The old idea of soil investigation was to collect samples, examine them in the laboratory, and see what differences could there be determined; the newer idea is to study the characteristics and properties of soils in the field, classify them according to obvious differences, and, with this information in hand, use the laboratory as a means of ascertaining the cause of such variations as can not be determined in the field. This method of attacking soil problems is the reverse of the usual practice, but because of the great difficulty in duplicating field conditions, it is believed that a field examination should precede laboratory studies. The field observations can thus be used as a check upon laboratory investigation and as an aid in their interpretation. Field studies furnish a safe and necessary anchor with which to keep the laboratory experimenter from being dashed against the rock of pure speculation. The classifying and mapping of the various soil types, together with the study of the conditions and processes under which they have been formed, will furnish essential and invaluable data for the conduct of laboratory investigations. Nature's great laboratory is in the field, and a study of her methods can not fail to offer many valuable suggestions, and in some cases, is the only means of solving her problems. It is through a combination of field and laboratory investigations that an understanding of this extremely complex body—the soil—can be reached."

Many of the great heroes with whom we shame ourselves, not only did not perform the great deeds we attribute to them, but they never existed. There are some very good fellows among cowards.

## Best Spray Results At Cheaper Cost



E. Myers,  
President,  
E. Myers  
Lye Company

Orchardists and vegetable growers who have experimented with Bordeaux Mixture know that it costs them from 40c to 66c for 50 gallons when arsenate of lead is used in the mixture. That makes a season's spraying a more expensive proposition than it need be.

Here is a better and much cheaper way: Dissolve

### Merry War Powdered Lye

in the proportion of one can to 15 gallons of water—50 gallons of spray mixture thus costing only 33¢. If water is very hard use a little less than 15 gallons to each can. **Cut out and save these directions.**

It is more effective than Bordeaux Mixture or any other commercial spray, is easier to prepare and, unlike other spray mixtures, it makes such a perfect solution that no agitator is needed to get the full benefit. It is sure death to all destructive fungus growths like bitter-rot, scab, blotch and leaf-spot and also insect pests like codling moth and San Jose Scale. Kills eggs on tender leaves and twigs but does not injure buds or foliage. Equally effective in the garden for destroying insects that infest vegetables and melon vines. To destroy Borers use one can to 10 or 12 gallons of water. The drippings act as fertilizer, enriching the soil and increasing the yield.

**Try It Today** You know the value of intelligent spraying. Now try the MERRY WAR POWDERED LYE way and prove for yourself, that it produces better results at much less cost than ordinary spraying. There are no substitutes.

### Here's One Man's Experience

"Have used MERRY WAR POWDERED LYE for washing the trunks of my fruit trees and have received excellent results. It is a sure borer preventive. I have the healthiest trees of them all and my neighbors are now MERRY WAR POWDERED LYE users for the borer worm." J. H. REQUA, Little Rock, Ark.

Sold by Leading Dealers Everywhere MERRY WAR POWDERED

convenient to buy in full case lots of 4 doz. cans for \$4.50, at Grocers, Druggists and Feed Dealers Everywhere.

If you can't supply you, write us, giving your dealer's name and we will see that you are supplied, and will send you free a valuable booklet.

Now MERRY WAR POWDERED LYE adds to the farmer's profits. Order direct of us in full case lots—4 dozen cans, \$4.50. If your dealers won't supply you.

E. Myers Lye Co., Dept. 1188

St. Louis, Mo.

Demand MERRY WAR POWDERED LYE for hog use.

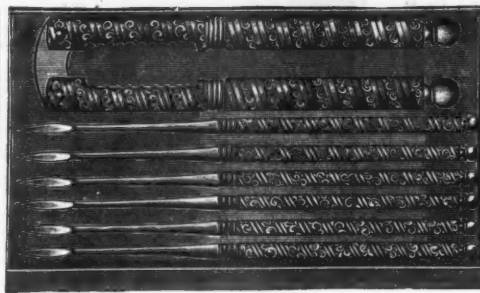


Crops Sprayed with Merry War Powdered Lye



Without

## A Beautiful Nut Pick Set

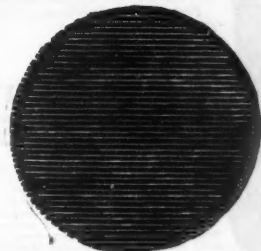


This is both a useful and an elegant premium. The set consists of a handsome and strong nut cracker and six individual nut picks, all in a neat and durable case. Both the nut cracker and the nut picks are made of the very best steel, are beautifully designed and heavily plated. They will be a real delight to you and your guests. The handles of the nut picks are made in a pretty design, while the points are highly polished. The nut cracker is of a design corresponding to the nut picks and is made for good strong service. A set should be in every home. Of course you want one.

How to get one of these Beautiful Sets: Send us four new subscribers to Green's Fruit Grower at the special low price 35 cents each per year and we will send you the Nut Pick Set charges prepaid.

Address GREEN'S FRUIT GROWER, Rochester, N. Y.

## IDEAL Corrugated Paper CUSHIONS For Packing Apples



Keep the fruit unbruised so that apples are delivered as round and solid as the day they were packed. Their use is an evidence of careful packing which commends your fruit to the trade and their cost is so low that every packer should at least investigate. Standard discs 16½ inch diameter. Discs and sheets cut to order in any size. Write us.

THE HINDE & DAUCH PAPER CO.  
DEPT. No. 3  
SANDUSKY, OHIO





Other advantages of Arsite are ease in using, economy and wonderful effectiveness. Just add Arsite to Bordeaux—or water with freshly slaked lime—and then spray. Arsite remains long in suspension—will not clog the pump.



Arsite can not harm any foliage, for it does not contain free white arsenic.

If you do not use Bordeaux you should use Herrmann's Calite instead of Arsite. Just mix Calite with water and it's ready for use. Just as effective as Arsite.



Arsite is sold in 35c half-pint cans and in 65c pints; Calite in 30c pints and 50c quarts. We can supply you if your dealers can not.

Write for Full Information and learn just how valuable to you these wonderful new insecticides can be.

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## APPLE GROWING

The healthier the tree, the better the fruit. The longer trees are sprayed with "SCALECIDE" the more beautiful, healthful and fruitful they become. "SCALECIDE" is the acknowledged leader of all soluble oils—the only one containing distinct fungicidal properties. "SCALECIDE" will positively kill all soft-bodied sucking insects without injury to the tree. Let us prove these statements. Send today for free booklet "SCALECIDE—the Tree Saver." Address B. G. PRATT CO., Mfg. Chemists, 50 Church St., N. Y. City.



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Write for your copy today. Most valuable, interesting and instructive book on home canning ever published. Fully explains how to make big profits from your entire vegetable and fruit crops—not a bit of waste. The "high cost of living" is largely due to waste of food products.

Thousands of dollars are lost to farmers and fruit growers every year because they are compelled either to sell rapidly ripening vegetables and fruits on a glutted market, and sacrifice profits—or allow them to go to utter waste. You need do neither. Install on your farm a portable

## STAHL Canning Outfit

And can your surplus fruits and vegetables. There is always a demand for them right in your own locality and you can easily build up a profitable business.

Stahl Canning Outfits are made in all sizes—each one a complete canning factory, varying only in capacity. Costs but little to buy, very little to run—no experience required to operate—safe, simple, portable—and a big money maker from the start. I supply everything you need including my special directions and valuable formulas for canning the different vegetables and fruits. Sure results in either glass or tin.

## Over 100,000 In Use

These canning outfits are making big money for farmers and fruit growers all over the country. I can prove one will make money for you. Write me today. My big book shows reproduced photographs of Stahl Canners in actual use by customers—some right in your locality.

F. S. STAHL,  
Box 501 Quincy, Ill.



## HEALTH DEPT.

### Beauty Foods.

The first important step in securing a good complexion is to clear the blood, and this can be done by eating properly selected foods. Young onions eaten with salt are one of the best blood and nerve tonics we have, and greens of every description are invaluable. Some one has called spinach "the broom of the human system," and either this or some other form of greens should be eaten two or three times a week. Lettuce and water cress are excellent, and the latter is used on the diet list of persons suffering from obesity. Carrots are said to be most effectual in producing rosy cheeks, if they are eaten frequently, and rhubarb is a fine laxative.

### Moist Hands.

A good cure for that trying ailment, hands that are clammy or perspire, is to keep on the dressing table a small cheese-cloth bag filled with one part borax and three parts starch. This, if dusted over

with some food material which cannot be digested. The sensible person who believes in prevention rather than cure heeds this first warning and seeks a simple remedy at once. A corrective which will bring almost immediate relief is composed of the following mixture: The juice of one orange, water and lump of sugar to flavor; and in proportion to the acidity of the orange, about half a teaspoonful of baking soda. Dissolve the sugar in the water, add the orange juice. Then put in the soda. Stir and drink while effervescing. Take the mixture half an hour before breakfast for three or four days in succession.

### Simple Remedies for Tired Feet.

For the man who has been in the fields, or for the housewife who has been on her feet all day, there is no simpler or more comforting foot ease than a tubful of hot—not warm—water into which has been thrown a large handful of salt. If the feet are bathed in warm water without salt, they should be carefully dried, then rubbed with spirits of camphor, which should be allowed to dry on.

If it is desired, after this treatment the feet may be rubbed with cold cream, which has a particularly soothing effect and dissipates callous spots by softening them. The cream should be rubbed in very thoroughly between the toes and on the soles and insteps.

Great care should be taken of perspiring

exercise will have a poor complexion nor get too fat; neither will she suffer from nerves and hysteria.

"The woman who lives right, thinks right and works right may be more beautiful at forty or sixty than at twenty, and the preservation of the divine gift of beauty is a duty that no woman should neglect for her own sake and that of the world about her.

"It was formerly thought that the drinking of liquids with meals was highly injurious, and probably the over-drinking of liquids is injurious. Recent investigations, however, have shown that bad effects resulting from drinking simple beverages are likely overestimated.

"Good milk, a glass of water, cider, or grape juice, and even a little tea or coffee, well diluted with hot milk, may be taken at meals. Tea and coffee form but a temporary stimulant, due chiefly to an alkaloid caffeine, which they contain. Too free use of these beverages causes nerve exhaustion and dyspepsia."

### The Ticklish Throat.

"For cooling the throat in the first stage of an acute throat cold, ten drops of glycerine are superior to one gallon of ice water. That persistent tickling won't down. . . . The spot is hot. Swallowing cool fluids only makes it hotter in the end. The incessant coughing only results in more tickling and more coughing. Glycerine is the only remedy that will prompt-



This is the season for getting out into the woodlands and by the shores of the streams and lakes. No one enjoys such outings so much as the boys and girls. In the above photograph is the old swimming hole. Who can forget the experience of early days at such resorts as this. Many years after when we have grown gray and wrinkled we can recollect the swimming hole and the place where we used to catch big fish and hunt the wild duck or muskrat.

the palms of the hands when they feel sticky, will quickly check the moisture. Another help is to keep a bottle of alcohol in a convenient place and wipe off the hands with it several times a day. An excellent but somewhat more complicated lotion is to mix twelve tablespoonsful of rose water, four tablespoonsful of elderflower water, one tablespoonful of tincture of benzoin and ten grains of tannic acid. Rub well with this liquid and later dust with a drying powder.

### Don't Worry.

It is not hard work that causes so many of the break-downs so often noticed in our household duties, but worry. Worry about trivial matters and the worst feature is that the habit grows rapidly, says Western Farmer. The new thought idea of relaxation and periods of complete rest at short intervals during the day, is doing much to contribute to a better heart, to better health and happiness among many. If we can convince our readers that one of their chief aims should be to expel from their minds completely the things which cannot be helped—past misfortunes, the trivial occurrences that may have been freighted with humiliation, we would feel that our work is well done. If we think of our past troubles, it does us no good, but instead, robs us of peace and comfort. The ability to forget useless things is a great one and we should strive to learn it at any cost.

### Heartburn.

This is a signal which the stomach gives that it has been overloaded or supplied

feet, as their condition grows worse with neglect. They should be bathed every night in hot water in which powdered alum has been dissolved in the proportion of an ounce of alum to a tubful of water. An excellent mixture with which to paint the feet after they have been bathed is made of two ounces of glycerine, six ounces of perchloride of iron and twenty drops of essence of neroli. This should be applied carefully with a little brush, great care being taken to cover all creases and folds in the skin. This application is to be followed at once by a dusting with good talcum powder or one made of two and one-fourth grams of burnt alum, one and one-fourth grams of salicylic acid, seven and one-half grams of starch and twenty-five grams of violet talcum powder.

### Beauty and Age.

In the October Woman's Home Companion, Harvey W. Wiley writes an article on "Intelligent Eating." He gives a great many practical suggestions, and on the subject of women says:

"Women should be especially careful to choose the right diet. For the sake of her beauty, if nothing else, a woman should choose the right amount of nutritive foods, and avoid the temptations of overeating. Coarser bread, more fruit, less meat, and especially moderation, or total abstinence, in the use of tea and coffee, will secure relief from the all too retarded action of the digestive organs which is the curse of so many women who lead sedentary lives. No woman who eats properly and gets plenty of fresh air and

ly reduce the local congestion and afford relief. . . . Place the glycerine, say about ten drops, on the tongue, slightly throw the head back, and wait for the ciliary action to carry the remedy back into the pharynx. When impelled by necessity, but not before, swallow. . . . The procedure may be repeated, but this is seldom necessary. It is especially serviceable at night to make sleeping possible."

### Health Notes.

If your appetite is poor, your health is also poor.

The man who habitually eats in a hurry, will be likely to die in the same way.

Bodily health and vigor come, not so much from what we eat, as from the food that is well digested and thoroughly assimilated.

If your appetite is good and you enjoy your meals, you can easily maintain these conditions by eating plain, wholesome food at regular intervals, and by eating slowly and chewing your food well. Then add to this, daily exercise in the open air and sun—if you are an indoor worker—and plenty of good fresh air in your bedrooms at night, and the chances are your good appetite will stay with you all the time.

We never gather colds from fresh air, but we do from foul air.

Systematic drinking of pure water is a fine remedy for many ills. As a means of keeping one in good health, it has no equal.

Next doubted grows on the count fruits, say ly it is t cultivate climate west who the differ is partial tions, it adverse country Bears e consideri occupies list of va of qualit fruit and from ear longest a Can be hillsides, grown pr May be more hes Surely, t it the m plant. Exposu open sun slightly t exposure mildew a best varie A deep, deeply w

cultivated where the the grapes stated before eties it c adverse co to the poi ditions are Cultivat sults sho liberal fee results by in spring a peas, keep and serve early sprin if possible manure is Frequent s tained the year cowpe There a single stak a trellis o ground is cultivation saving the the hoe, an does better the stake s liable to in much fruit vines to ov There is juring a v than by le The amate tempts to dormant w he will ge and fruit. The fact made a s Vines sho season and new growt the better is all right ist who k wood sho varieties h it is perma



## Grape Culture.

Next to the apple the grape is undoubtedly the most valuable fruit that grows on American soil, and in parts of the country, is regarded as King of all fruits, says Colman's Rural World. Surely it is the most accommodating fruit we cultivate, succeeding as it does in every climate and soil, north east, south and west when varieties are selected to suit the different sections. While the grape is partial to certain soils and other conditions, it is possible to grow it even under adverse conditions in any part of the country.

Bears early and yields more abundantly considering the amount of ground it occupies than any other fruit. Our long list of varieties gives us a greater choice of quality than we have in any other fruit and gives us a longer succession, from early July until after frost; lives longest and is the easiest to propagate. Can be grown to perfection on steep hillsides, where nothing else could be grown profitably.

May be preserved and put to more and more healthful uses than other fruits. Surely, then, we are justified in calling it the most useful and accommodating plant.

**Exposure and Soil**—Select the most open sunny exposure, preferably sloping slightly to the south or east. Such an exposure has a tendency to guard off mildew and rot to which many of our best varieties are subject.

A deep, loamy, limestone soil, dry and deeply worked is the ideal soil for the

porting the young growth. Not all varieties can be pruned alike, each vine must be pruned alike, each vine must be pruned according to its vigor; and just how to do this properly can only be learned by experience and a careful study of the habits of different varieties. What is called the renewal system, is the best method of pruning most varieties. To describe this briefly each crop is produced on a new cane of the previous year's growth and while this cane is fruiting, another is being grown to produce a crop the next season.

## Pears.

Both standard and dwarf pears are desirable for planting. The advantage with the dwarf pear is that they come into bearing early and never attain a great size, hence are well adapted to planting where the ground is limited. Then they usually come into bearing so early, two or three years after planting out, that several crops may be secured before blight kills the trees.

They are, however, not as long lived a tree as the standard, and in one sense this is an object as it necessitates planting oftener. But it will be an exception even on a small place when it will be best to plant a few dwarf pear trees, the number being proportioned to the number of trees planted.

Standard pears, if kept healthy, are very long lived and they will bear fruit a long time, but they are longer coming into bearing than the dwarf and need considerable more sun. When planted

## Horticulture.

"Horticulture today offers opportunities for intellectual growth and culture offered by nothing else, and whether you follow it professionally, or as an amateur, it will be an unfailing source of mental stimulus and enjoyment. \* \* \* I furnished a man some trees twenty-eight years ago, the man being at that time 57 years of age. Many of the peach trees have died and been cut away, and the pears are large, bearing trees; yet the man still lives in sufficiently good health to gather and enjoy the fruit."

## Frost Protection for Orchards.

The disastrous experience of the citrus industry of California during the past winter has awakened our people to the necessity of having appliances and equipment to handle the frost visitations, which history shows, periodically, at greater or less intervals, visits our boasted "frost-free" districts says Orchard and Irrigation.

I am coming to believe that the man that owns a "frost-free" citrus grove (so called) is at a disadvantage rather than an advantage for the reason that he serenely sleeps through the cold nights to awake some morning to find that his crop is ruined, and trees perhaps severely injured; whereas the man who knows that his grove is liable to frost damage is, or should be prepared, and is ever on the alert to protect it.

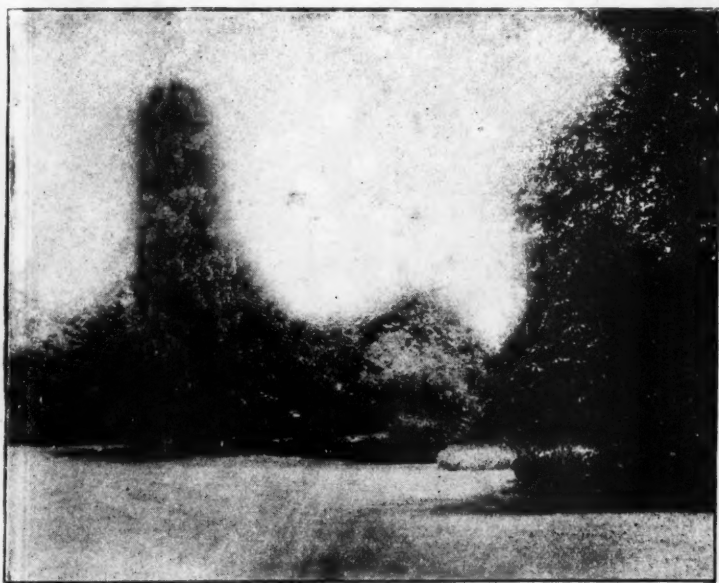
The experience of southern California

this past winter would almost make it seem as though there is no such thing as frostless land; particularly so inasmuch as some of the groves damaged the worst had never been touched before. The lesson surely should be that no man can afford to leave his grove unprotected if he has the slightest indication in his past experience that his grove is liable to damage; especially when it has been so often and thoroughly demonstrated that it is not only possible but practicable to protect a grove through periods when the thermometer outside the protected area drops as low as twenty degrees for many consecutive hours.

I think the consensus of opinion of our most experienced men is that there are only two practicable methods of frost fighting, coal baskets and oil pots; and save for one serious objection the oil pot is far superior to the coal basket—I refer to the sooting of the fruit.

At a frost convention which I attended recently our scientific men seemed possessed with the idea of solving the problem of frost protection by working out some kind of a cheap covering for the trees to be placed over them on the approach of a cold wave and removed after it had passed; an idea entirely impracticable for use on a commercial scale—first, on account of expense; second, impracticability, almost impossibility, of handling.

"Read, not to contradict and to confute, nor to believe and take for granted, but to weigh and consider."—Bacon.



Poplar tree at C. A. Green's home.

cultivated grape. This does not mean where these conditions can not be had, the grapes can not be grown, for, as stated before, by proper selection of varieties it can be grown under the most adverse conditions, though naturally not to the point of perfection, as where conditions are most favorable.

**Cultivation**—The grape for best results should have good cultivation and liberal feeding. In Illinois we get good results by cultivating two or three times in spring and then sowing cowpeas. The peas, keep down weeds, enrich the soil and serve as a cover crop in winter. In early spring these are plowed under, and if possible an application of good stable manure is given and later plowed under. Frequent stirrings of the soil are continued the rest of the season and the next year cowpeas are used as before.

There are two reasons why the old single stake method is to be preferred to a trellis or arbor. One is, that where ground is not too sloping, it admits of cultivation both ways with a horse, thus saving the slow and tedious work with the hoe, and furthermore the cultivator does better work. The other is, that by the stake system, the amateur is not so liable to injure his vines by leaving too much fruiting wood, thus allowing the vines to overbear.

There is very much less danger of injuring a vine by pruning too severely, than by leaving too much bearing wood. The amateur with trellis or arbor, attempts to cover every slat or wire with dormant wood, thinking that in this way he will get an abundance of both shade and fruit.

The fact is that an arbor can not be made a success if both are expected. Vines should be cut back severely each season and the arbor covered with the new growth, and the less fruit produced the better will be the shade. The trellis is all right for the experienced vineyardist who knows just how much bearing wood should be left on the different varieties he grows, because if put up right it is permanent, and gives space for sup-

porting the young growth. Not all varieties can be pruned alike, each vine must be pruned according to its vigor; and just how to do this properly can only be learned by experience and a careful study of the habits of different varieties. What is called the renewal system, is the best method of pruning most varieties. To describe this briefly each crop is produced on a new cane of the previous year's growth and while this cane is fruiting, another is being grown to produce a crop the next season.

Then plenty of potato starch should be supplied. Wood ashes, old vines or something of this kind can be put around the tree with benefit, and will help secure a better growth and a tree less liable to be attacked by disease. There is rarely an overstock of pears in market, so that good prices can nearly always be depended upon.

## Intelligence in Plants.

There is some intelligence in the vegetable kingdom, although, of course, of a very low type. It will be necessary, perhaps, to define what is meant by intelligence, in its broadest sense. There was at one time a distinction made between the intelligence of man and that of animals. The intelligence in animals was described as instinct. It is now understood that the difference is only in degree,—animals have the power to compare facts and make deductions from the facts. This, of course, is a function of intelligence. It would be hard to say whether plants have or have not power of discrimination of this kind.

Some say that farming is all hard work, but C. A. Green did not find it so. Both he and his city wife were never happier than during the years spent on a farm near Rochester, N. Y., which they converted into a Fruit Farm. C. A. Green's booklet, "How I Made the Old Farm Pay," gives a full account of their experience. Price postpaid twenty-five cents.

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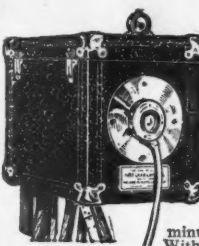
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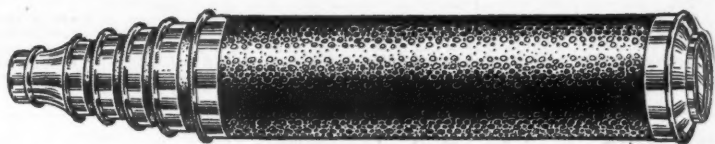
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## SYSTEMS OF MARKETING FARM PRODUCTS.

Advice by U. S. Agricultural Department.

Systems of marketing farm products and the demand for them at trade centers are the subjects of a special report to Congress by the Secretary of Agriculture, recently published. The report was made by special direction of Congress in order that information might be at hand concerning the establishment of a division of markets in the Department of Agriculture. The Secretary specifies various items of service that could be performed by such an office, with recommendations that they be adopted, if it is created. The report covers 391 pages and is crowded with information with regard to the subjects treated.

### BY PRODUCERS TO CONSUMERS.

The report treats of the movement of farm products from the farm to consumer through a great variety of channels. The simplest distribution is the direct one of delivery by farmer to consumer, and next after this is the delivery by individual farmers or associations of farmers to individual consumers or associations of consumers. In these direct forms of distribution, the middleman is eliminated,

and sells to packers; the factor to whom the planter consigns his rice or cotton and from whom purchases are made by millers; the warehousemen who manage the sale of a Virginia planter's tobacco.

The intervention of two men between producer and consumer is a common occurrence. Fruits and vegetables are often marketed through the aid of two middlemen, the city commission dealer and a retail merchant.

### ESTIMATES OF FRUIT AND VEGETABLE SUPPLY.

It is also recommended that estimates of the prospective supply of fruits and vegetables, and perhaps other products not now represented in the quantitative estimates of the Department's crop reporting service, be made a short time before harvest, so that the farmer may "have in mind a fairly definite idea of the volume of the crop throughout the country in order that he may occupy a place in the market that is fair to himself or, as the case may be, a place in the market that is fair to the consumer."

General market news service is not recommended. If such service were derived from telegraphic reports, the expense would be enormous. One farmer's marketing association spends \$25,000 a

bloom. The danger points for apples would correspond pretty closely to the different stages enumerated for peaches.

The danger points mentioned are conservative as in each case a little lower temperature would not kill but heaters should be lighted as these lines are approached. This applies to oil burners. When coal is used the heaters will have to be started from thirty to sixty minutes earlier as they are slower in warming up. The same thing is true of burning wood. When the temperature is falling rapidly, in all cases, heaters should be started decidedly earlier than when it is going down gradually.

Complete preparations for the heating should be made well in advance. The heaters may have to be filled and left in the orchard two or three weeks before they are needed. In the meantime they must be carefully covered as rains may occur and wet coal, or water in oil, will cause very inefficient fires.

The cost of heating a fifteen acre orchard or larger the first year would approximate \$45.00 to \$50.00 per acre. Less than fifteen acres, where the owner purchased alone, the cost would be about \$55.00 to \$60.00 per acre. These estimates include heaters, fuel, storage, tanks and labor. Tank wagons would cost extra,



Editor Green's Fruit Grower: I am sending you a photograph of a hedge of Caroline Testout roses grown in odd moments, with but little care, by J. B. Horning a retail grocer of Corvallis. He says that he merely took wood cuttings and stuck them in ground that had not been given any special care or preparation, and in a year they were blooming as in the picture. I thought this sufficiently remarkable to be of interest to your readers. Miss Alice Lindsey Webb.

The above is the message coming with the beautiful photograph of roses as grown in Oregon. Many readers of Green's Fruit Grower have not seen the great growth and bloom of roses in many of the western parts of this continent, and especially near the Pacific coast. Rose bushes there make a marvelous growth as do fuchsias and many other flowering plants. I have seen growing outdoors in California fuchsias nearly 20 ft. high, something unknown to our eastern readers. But even as we grow the rose in the eastern and middle states we find it the most attractive of all flowers. Many people consider roses difficult flowers to succeed with. In some respects they are more difficult to grow than other flowering shrubs. Most roses are only half hardy. They need some protection during winter, but all the protection necessary is to bank up about the canes to the height of 12 to 18 inches, cutting off the tops when spring arrives. Many fear to cut back the bushes so closely as 12 to 18 inches in height, but if you will try such cutting back you will find an abundant bloom forming new growth which will spring up vigorously.

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although of course intermediate services are performed either by producers or by consumers or by both parties.

### INTERVENTION OF MIDDLEMEN.

Among the varieties of middlemen concerned in the marketing of farm products are the traveling hucksters who go from farm to farm gathering eggs, butter, poultry, calves, and other commodities, which they sell to shippers, jobbers, or retail dealers. The country merchant is often the first receiver of such products as eggs, farm-made butter, poultry, wool, hides, cotton, and sometimes grain and hay. In regions where grain is the staple product, the tendency has been to displace the country merchant by the grain buyer and the local elevator man.

Farmers commonly sell through commission merchants and to some extent directly to wholesale dealers and also to retail dealers. The farmer who employs a trustworthy commission merchant who will handle his products honestly and honorably will get the current prices for them within the range of the commission merchant's business, but the farmer often finds himself in the hands of a commission merchant who falsely reports that the products were received in damaged condition or that they were of a grade lower than they were in fact, or he reports receiving prices lower than those actually received by him for the products. Worse than this, it is by no means rare that the commission merchant has sold the products and failed to return the net proceeds.

Samples of transactions in which only one middleman intervenes between producer and consumer include the commission man at a large market who receives consignments of live stock from farmers

year in telegraphing alone and a fruit growers' organization spends \$75,000 for this service.

### Heating Orchards.

Heating orchards to protect buds, flowers and young fruit from late spring frosts has proven to be practicable.

There are three ways of generating heat in the orchard—by burning oil, by burning coal and by burning wood or brush. Heat is what is wanted and not smoke. Smoke will help at times but cannot often be depended upon, especially in the hilly or rolling lands of Missouri. In a deep valley the smudge value of smoke would be the greatest. If smoke can be made to hang over the orchard it serves the purpose of preventing the escape of a great deal of natural heat which radiates from the earth.

In Missouri it will rarely be necessary to raise the temperature more than two or three degrees in order to save the crop. Swelling buds, full blown flowers and even young fruit can stand more cold than is generally supposed. The degree of cold that will be fatal will depend upon the stage of development of bud, flower or fruit. The danger points for peaches are as follows:

Buds appreciably swollen, zero.  
Buds showing pink, 15 above zero.  
Almost open, 25 above zero.  
Flowers newly opened, 26 above zero.  
Petals beginning to fall, 28 above zero.  
All petals off, 30 above zero.  
"Shucks" (calyx tubes) beginning to shed off, 32 above zero.

It should be added that the farther along the young fruit is in its development, the less cold it can stand. The most tender stage is not when trees are in full

After the first year the cost for heating would not be more than \$10.00 to \$20.00 per acre. These figures refer to oil heaters. We do not have the data for coal burners but they would be no more and probably much less. Where a large block (10 acres or more) is heated, the number of heaters per acre will be reduced as fewer will be needed in the interior of the orchard.—W. L. Howard, University of Missouri, Columbia, Mo.

### Things Worth Knowing.

Lettuce has a soothing effect on the nerves and is excellent for sufferers from insomnia.

Tomatoes are good for a torpid liver, but should be avoided by gouty people. Celery and onions are nerve tonic.

Spinach has great asperient qualities and is better than medicine for constipation.

Beets are fattening and good for people who want to put on flesh. So are potatoes. Parsnips possess the same virtues as sarsaparilla.

Asparagus stimulates the kidneys. Bananas are beneficial to sufferers from chest complaints.

Cranberries are a stringent and correct the liver when it is suffering from inaction caused by overeating.

Dates are exceedingly nourishing and also prevent constipation.

The juice of grapes is a laxative, but the skin and seeds are likely to cause constipation.

Honey is a good substitute for cod liver oil.

The juice of a lemon is excellent as a gargle for sore throat, but should not be swallowed.

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Eliza Jane is Dead—Or The Orphan Kittens.

By C. A. Green.

I do not know who gave her this name. She was the family cat. Some one wanted to get rid of her, therefore she was left with us, a stranger in a strange place.

One wintry morning I heard a piteous mew and saw the head of a yellow cat projecting from a pile of refuse lumber. The creature seemed to be almost starved. I carried her food and found that she had six little kittens in the interior of the pile of rubbish. I wondered that they had not frozen. By degrees, I made friends with Eliza. She seemed greatly to desire to be petted and smoothed, but was so wild it was difficult to approach her at first. But after a week she would come out of the rubbish pile and follow me around desiring to be petted. As soon as we could get at the kittens we removed them to a warmer habitation. Gradually, Eliza Jane found her way to our kitchen door and later on ensconced herself behind the kitchen stove. On cold nights she was dispatched to the cellar, where there was a furnace fire.

By degrees, Eliza Jane assumed regal authority over my house, my yard and my carriage house, where she spent many a happy hour. I mean by this that she acted as though she owned the entire place. She bossed other cats, the chickens, and neighboring dogs, giving them to understand that if she permitted them to remain on the place, they would have to behave themselves. She seemed to be very proud of her position as master of the premises, but was never so proud as when she could exhibit to me a new batch of kittens. When I would first discover these new kittens, the old cat would act as though she had accomplished the greatest feat that cat life had ever experienced. She exerted every faculty that she possessed in displaying the pride she felt for the little blind kittens for whose presence on earth, she was responsible.

One day the caretaker of the place reported that Eliza Jane had not been seen at the barn, where she had three little kittens, and that the kittens were crying loudly for food. He had carried them milk. We gave him a new supply of milk and told him to see that they were fed.

What became of the mother has never been known. Probably some fierce dog caught her unawares and snuffed out her life between his cruel jaws. If Eliza Jane had had an opportunity to fight fairly she would have disabled the dog, because she was a terrible fighter, and all the dogs I knew of, were more fearful of her than they were of other and larger dogs.

Lime-Sulphur On Peaches.

It has been found at the Pennsylvania experiment station that summer-strength lime-sulphur applied on June 22d and 30th and on July 11th against the young San Jose scale, which had emerged first about June 18, were thoroughly effective against the young in all cases and also that each spray very materially reduced the number of adults. No further emergencies of young scales was noted and a thorough examination on August 20th failed to reveal any signs of living scales whatever.

A similar experiment with an apple tree about eight years of age and badly infested, indicates that it is quite possible and practicable to control San Jose scale on apples by summer spraying alone, though two or more sprays will doubtless be required.

All About Helpful Spraying.

Commissioner Huson of the State Department of Agriculture is receiving many reports from different parts of the state that with the swelling of the buds of fruit trees, destructive insect pests have already begun their depredations. The idea that spraying is one of the essentials for fruit culture is generally believed. That it is necessary to spray for different purposes is not as well understood. All spraying operations should have a definite object in view. Different insects require different treatment at different seasons. The injurious insects necessary to combat at the present time are as follows:

San Jose scale. If fruit of last year was scale marked, the presumption is that the trees are infested to a greater or less extent. They should be sprayed at once, and up to the time that the blossoms open, with concentrated lime-sulphur solution at the rate of one gallon to ten gallons of water to which should be added two pounds of arsenate of lead to each fifty gallons.

The time to spray for apple tent caterpillars, bud moths and canker worms is any time before the blossom buds appear, using two pounds of arsenate of lead to fifty gallons of water or lime-sulphur solution.

If plant lice or aphides are discovered on the opening buds, they should be sprayed at once with kerosene emulsion, preferably with tobacco extracts, the value of which is determined by the per-

centage of nicotine content. The grade known as black lead "40" which means 40 per cent. nicotine may be applied in water or lime-sulphur solution at the rate of one-half pint to one hundred gallons of water or solution. Tobacco extract is also useful for control of pear thrips and psylla. The time to spray for thrips is very early before the blossom buds separate at the tips. This very early spraying is essential for controlling this pest. The time to spray for psylla is just after the blossoms drop, and three pounds of soap or kerosene emulsion diluted with eight parts of water should be used.

The time to spray for codling moth is immediately after the petals drop and definite information should be obtained for this purpose.

The Department circular No. 58 will be sent on application. It contains definite directions for spraying operations.

The Peach Grub

If one succeeds with peaches, he must examine his trees twice each year for peach-tree borers. The first examination should be made in the month of June and then in the fall. Never cut across the grain in digging borers out. After the examination in summer, leave the crown of tree exposed to the air for a few days then spray base of the tree with arsenate of lead and lime-sulphur. Use one pound of arsenate of lead to five gallons of lime sulphur, cover up with six inches of soil says Southern Fruit Grower. By taking a sharp pointed knife and following the borer's tunnel, cutting a narrow groove through the bark it can soon be discovered and picked out. The soil should be left away from the tree in order that any that should be missed would not be protected from the cold.

The following June, the orchard should be gone over again thoroughly and each tree carefully searched for borers and then mounted eight or ten inches high. As the moths do not emerge until July many of them are prevented from coming out by these mounds and those that get out are compelled to lay their eggs above the mound. In this way the small borers are easily found. It is essential that this work should be done thoroughly.

How to make a Fruit Farm of an ordinary Grain Farm is told by C. A. Green in his illustrated booklet of sixty-four pages, telling how he succeeded on a fertile but run down farm near Rochester, N. Y. The price of this booklet is twenty-five cents postpaid.

Are Oil Sprays Injurious.

Editor Green's Fruit Grower:—I saw an article in Green's Fruit Grower of April on the inside of cover by Harold Cook, Vt., stating that he had injured his young trees by using an oil spray, and asking for the experience of others who had used oil sprays.

The article does not state what kind of an oil spray he used. I have had considerable experience as you will see in this matter.

I have used very successfully a spray composed in part of crude oil and lime which was very effective as a fungicide and insecticide, the grass grew larger under the trees than it did elsewhere, the trees were very luxuriant in appearance and bore abundantly, the fruit adhering to the trees until gathering time. I used it on all kinds of fruit, the young trees grew as if fertilized. I used this spray three years, then the man who held the secret of the combination became unbalanced in his mind and I could get no more. I next used Scalecide for three years, which as you know is an oil spray, and my experience with it has been equally good as with the former, it is very nice to handle and in my experience has proven an excellent fungicide and insecticide and will not damage trees or vegetation, but will greatly invigorate them if put on according to directions. Then I used lime and sulphur two years—one year of home boiled and one year the commercial article. The result that I got was that it was a fairly good insecticide but worthless as a fungicide. Last year and this spring, I have used as a first spray an oil spray made in our state and known as Sprayoleum and so far, I have no fault to find. This year, I am trying out in a small way Derror's Tree Fluid, said to be a complete spray without the aid of paris green, arsenate of lead or pyrox. If it proves successful, it certainly will be the coming spray, it is a powerful concentrate and stands lots of water. All the sprays except lime sulphur are very nice to handle and are harmless to skin or clothing, whilst lime sulphur not only corrodes but "bites like a serpent and stings like an adder."—R. A. Mohler, Ohio.

It is a mistake to crowd the raspberries. Do not leave over six canes not nearer than four feet with rows about six feet apart.

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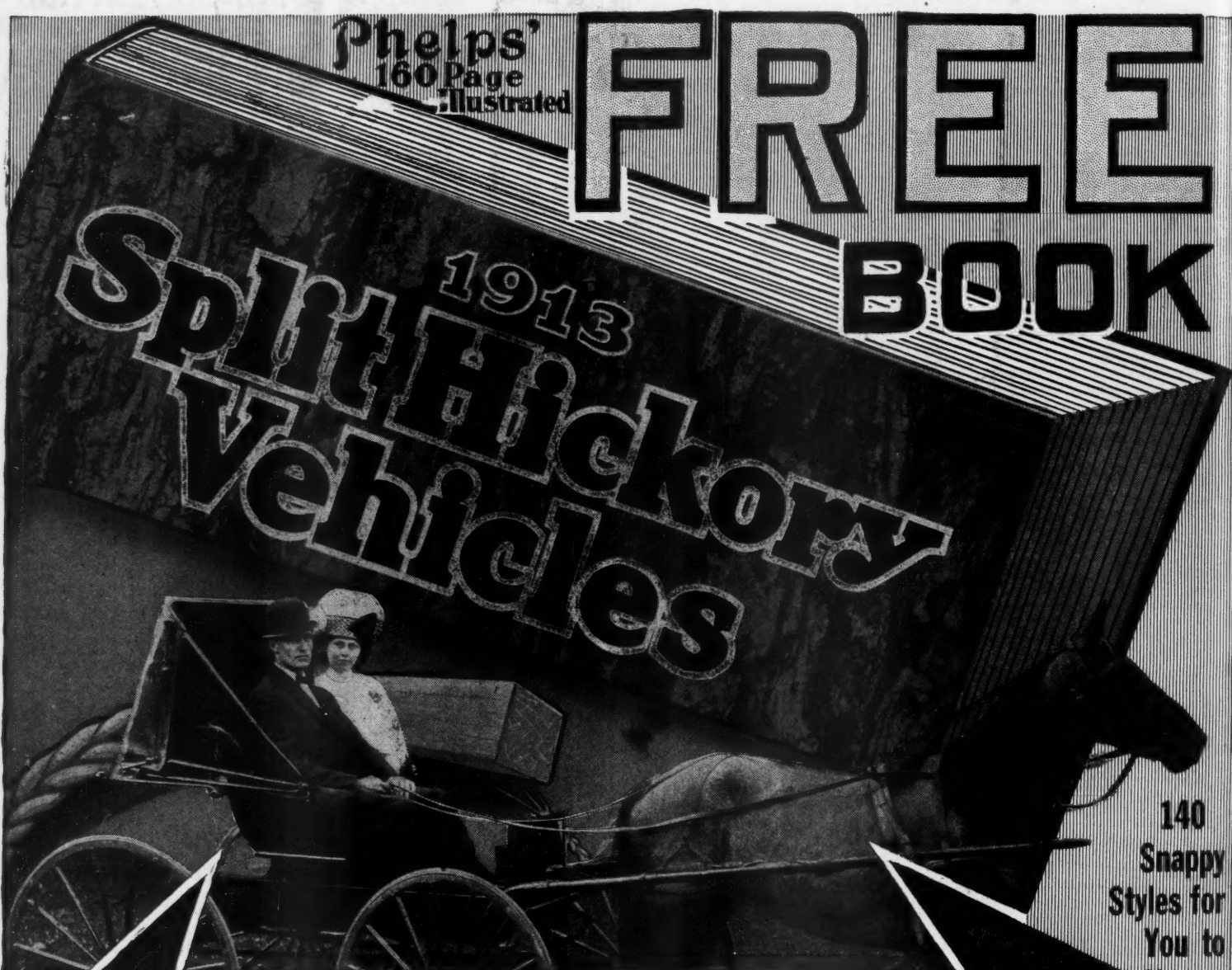
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